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Hunter Highlights

News and Trends of the Automotive Service Industry

New HammerHead™ System Speeds Balancing Service by Eliminating Weight Placement Error

Exact weight placement is a critical step in a quality wheel balance. Even a slight misjudgment when attaching a weight can lead to excessive check-spins, lost time and wasted effort. Hunter's newly announced HammerHead™ TDC Clip-Weight Placement Laser System virtually eliminates weight placement errors. The HammerHead laser system employs Hunter's patented ServoDrive™ system to automatically position the wheel weight location at top-dead-center and then projects a precision laser line to mark the exact weight placement position. The HammerHead system also provides overhead fluorescent illumination for the operator's work area.

The HammerHead™ system is available on Hunter GSP-series wheel balancers or can be retrofitted to qualified Hunter GSP balancers already in use.

The HammerHead™ system eliminates errors by projecting laser lines onto the rim flange at the exact weight placement position.

Hunter Quality Management is Certified by DaimlerChrysler

DAIMLERCHRYSLER

Certificate

DaimlerChrysler AG (GSP/TI)
hereby certifies that the following company

Hunter Engineering Company
11250 Hunter Drive
Bridgeton, Missouri 63044
USA

has introduced and is implementing

Quality Management for Workshop Equipment 1.0
for the Mercedes-Benz and smart Service Organization
worldwide

for workshop equipment approved by DaimlerChrysler AG

This certificate is valid until May 2009

Stuttgart, June 2007

Schöbel Kern

Oliver Kern (right, foreground) the DaimlerChrysler executive responsible for QMW 1.0 is pictured here with Hunter's St. Louis assembly plant manager Tony Campanella during the recent quality management audit. On-site inspections of Hunter's quality management processes in the St. Louis and Mississippi production plants, product design and engineering, and training areas were part of the audit.

For a third consecutive evaluation period, Hunter has earned the DaimlerChrysler AG Certificate for Quality Management for Workshop Equipment 1.0. According to the Stuttgart-based Service Engineering branch of DaimlerChrysler, Hunter earned the "maximum" or "...almost maximum number of points awarded for each of the individual [evaluation] process elements." Hunter's 2007 score of 93 percent eclipsed its previous record score of 91 percent in 2004. Fifty percent is required to pass. The QMW 1.0 program extends the DaimlerChrysler's process of continuous improvement of quality to its equipment and service providers. Hunter became the first U.S. company to earn the Certificate in 2000 and remains the only company outside of Germany to have done so.

Autopromotec 2007 — Bologna, Italy

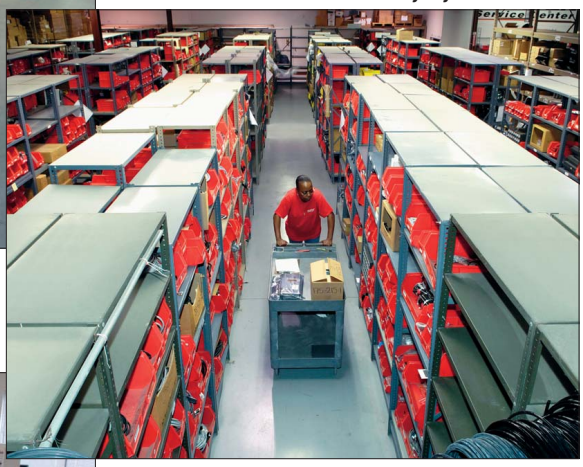
Drawing industry professionals from throughout the world the biennial Autopromotec Exhibition is a key venue for Hunter's International Sales and Marketing staff. Attendees will find a full range of Hunter export products on display at the exhibit of Pogliani & Rivolta S.p.A., the distributor of Hunter products in Italy. The 2007 exhibit was one of largest and most diverse displays of Hunter equipment ever shown at the event.

Super Service Center Provides Unprecedented Product Support

In 1991, the availability of overnight shipping and onset of Internet-based communications led Hunter to centralize its parts supply and technical service support operations into a single Super Service Center in St. Louis. In the sixteen years since, the center has more than tripled in size and volume and continues to increase efficiencies. Continuous upgrading of systems and technologies ensures that Hunter's Super Service Center achieves or surpasses its mission of quickly, supplying parts, technical assistance and off-site repairs for Hunter's 300-plus service representatives located throughout the U.S. The 46,000-sq.-ft. facility maintains an inventory of up to 10,000 items and accommodates same-day order processing from all U.S. time zones. Of the center's 350 to 500 daily orders, *more than 98% are shipped the same day!*

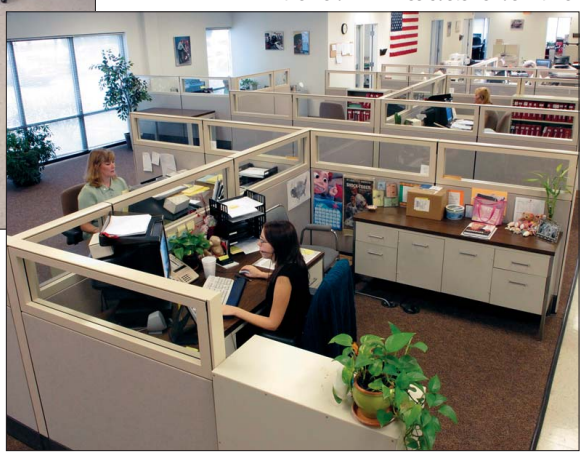
Up to 10,000 items, covering Hunter equipment produced for the last 20 years, are either stocked or drop-shipped from the factory. All individual items are bar-coded for accuracy.

Orders are readied for shipping and triple-checked for accuracy the day they are received. The warehouse team handles as many as 500 orders per day ensuring parts and accessories availability anywhere in the U.S.



The Technical Support Repair Lab handles repairs that Hunter Service Representatives cannot make on-site. Items received are typically on their way back to the customer within 24 hours. Repair Lab staff also provide real-time technical assistance to Hunter Service Representatives via phone or the Internet.

Immediate action by Super Service Center staff helps Hunter Service Representatives in the field minimizes customer downtime.



MOTOR Magazine "Covers" Hunter

MOTOR Magazine showcased Hunter technology in its June issue cover story titled "Total 4-Wheel Alignment". The article, by MOTOR senior writer Mike Mavrigian explores four-wheel alignment fundamentals in a contemporary context, reviewing many concepts pioneered by Hunter Engineering Company from the 1940's to the present. MOTOR, founded in 1903 to record the "ascendancy of the automobile" in the U.S., is a publication of Hearst Business Publishing.

TOTAL 4-WHEEL ALIGNMENT

By Mike Mavrigian

Modern equipment greatly simplifies the wheel alignment process. But it's still important to understand how alignment angles are measured, as well as their effect on driveability, braking, tire wear and handling.

The old method of wheel alignment, called centerline two-wheel alignment, should now be considered obsolete. This method does not consider the rear wheel position, and it simply isn't effective, because it ignores the thrust direction of the rear axle.

A much more effective method is called thrust line or thrust angle alignment, which considers the actual location and direction of the rear wheels. This allows you to adjust the front wheel angles relative to the rear wheel angles, regardless of the geometric centerline.

If the vehicle in question features rear wheel toe adjustment, you can achieve optimum wheel alignment using the total four-wheel approach, by referring to and adjusting the vehicle thrust angle to as close to zero as possible.

If the thrust angle is off zero, it can contribute to vehicle dog-tracking (crooked body relative to direction of travel), increased tire wear and unequal left/right turning. Total four-wheel alignment allows you to adjust and hopefully correct rear axle thrust angle, then to adjust the front wheels parallel to the rear wheels.

If the vehicle does not allow rear wheel angle adjustment, take advantage of a four-wheel thrust line alignment approach.

If the vehicle does allow rear wheel angle adjustment, perform a total four-wheel alignment.

Granted, a state-of-the-art computerized wheel alignment system will walk a technician through the steps, perform all necessary calculations and instruct the technician to adjust angles in order to meet an OE specification for a specific production vehicle. However, it's also important to understand wheel angles and what these angles represent in terms of driveability, braking, tire wear and handling. In other words, it's helpful to understand wheel alignment theory. Only by grasping the rudiments of wheel angles will you be able to appreciate how these angles affect a vehicle in motion.

A number of dimensional angles are

30 MOTOR June 2007

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Hunter History — 1982

111 Series Wheel Aligner Introduces Microcomputing Technology

This Hunter A111-D4M model aligner featured a mobile cabinet with self-illuminated signage. Four-wheel electronic sensors were hard-wired to the cabinet.

Hunter introduced the Series 111 wheel alignment system, one of the company's most successful product lines, in the spring of 1982. The A111 offered a lineup of industry firsts. Complete four-wheel alignment capability displayed all front and rear alignment readings simultaneously on a CRT. Electronic sensors delivered automatic wheel runout compensation on all four wheels. Real-time specification vs. actual alignment readings and a bar-graph graphic display guided the technician during adjustment. Concerned that technicians might reject the CRT interface, company engineers also prepared a 111 model that used analog readouts. Not a single analog unit was ever sold.

Within two years of its introduction more powerful generations of the Series 111 eliminated more manual steps to make wheel alignment even faster. The C111, for example, stored specifications for 90% of U.S. cars and light trucks sold during the previous 10 years. By the end of the decade the Series 111 offered color, high-definition illustrations to train and guide the technician; printable inspection and alignment data; and infrared optical wheel sensors that eliminated the mechanical toe line. Hunter engineers would later incorporate these innovations into more powerful PC-based alignment systems and lead the industry into the 21st century.

Hunter Highlights
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11250 Hunter Drive
Bridgeton, MO 63044 U.S.A.
314-731-3020
http://www.hunter.com

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