

# Walther EMC

Walther Engineering and Manufacturing Company, Inc.

## Dura-Light<sup>®</sup> Hubs

...as strong as steel forgings,  
as light as aluminum,  
at a much lower cost.

Experience

Dura-Light<sup>®</sup> Hubs have been in the market for 10 years

Weight

Still the *Lightest* in the industry

E-Coating

Lasts 20x longer than regular, water-based paints

Studs

Very easy to replace

Warranty

Life-of-the-Vehicle Warranty



Walther Engineering and Manufacturing Company Inc.

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## Dura-Light Hub® Benefits

### Money Benefits

- Low initial cost but aluminum weight
- More freight capacity for trailer life
- No future costs to maintain weight savings  
i.e. high replacement cost of light-weight brake drums
- Trailer more valuable because light-weight
- Life-of-Vehicle warranty

### Maintenance Benefits

- Weight reduction without trailer life compromise
- Utilizes industry standard components-bearing cups, seal, hub cap and hub cap bolts
- Utilizes industry standard procedures for maintenance
- Clipped heads on wheel bolts eliminate turning of wheel bolt in hub
- Virtually impossible to strip hub cap bolt hole threads
- No aluminum hub maintenance risks
- Largest oil cavity in the industry (30 oz. N, 40 oz. P)

## Aluminum Hub Maintenance Risks

(1) The soft aluminum brake drum pilots easily yield from improper installation of the brake drum causing brake drum thumping, braking vibrations and hot spotting on the brake drum. Damaged brake drum pilots allow the brake drum to not be centered on the hub.

(2) A galvanic reaction (highly corrosive) occurs between the ferrous brake drum and aluminum hub causing great difficulty in removing the brake drum and proper piloting when re-installing. This situation exists because minimum clearance between hub pilot and brake drum pilot can be as little as .001". Deterioration of the pilots will allow inaccurate locating of brake drum and possible brake thumping.

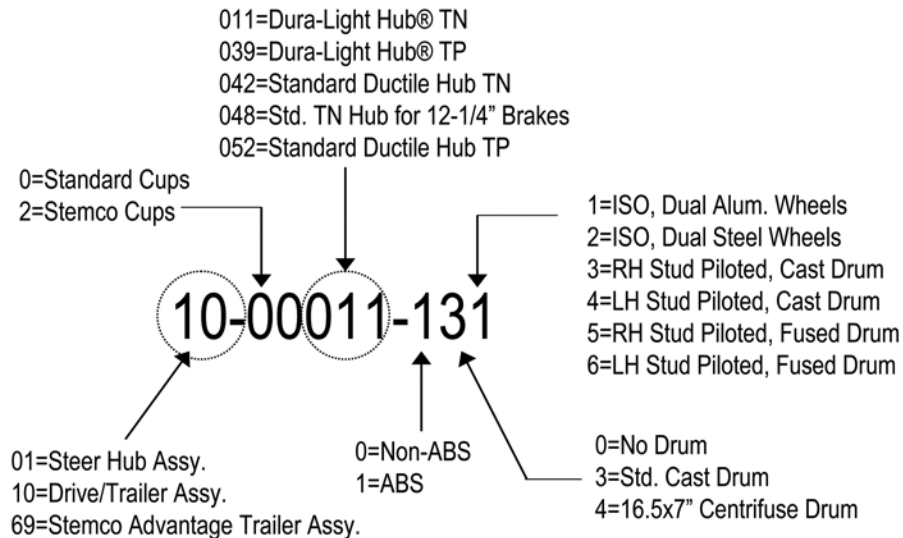
(3) Hub cap bolt hole threads are easily stripped on aluminum hubs, risking oil leakage, bearing failure, axle fire, axle damage, etc. Also, installation of non-plated 1/4-20 hub cap bolts will react (galvanic reaction) with the aluminum hub causing significant deterioration of the threads and possible loss of holding force.

(4) Aluminum hub manufacturers recommend heating the hub in an oven to 175-215°F to remove the bearing cups. Since few maintenance shops use ovens for maintenance procedures, a torch is often used with no control of temperature when applied to the aluminum hub. Overheating the hub to remove and install bearing cups, i.e. using a torch, can materially change the metal fatigue characteristics of aluminum and thus increase the risk of failure.

(5) Industry standard bearing cup removal and installation procedures can easily scar and nick aluminum surfaces, risking mounting problems, spun bearing cups, or premature failure.

(6) Difficult to remove wheel nuts can loosen wheel bolts in soft aluminum hub. Loose wheel bolts might allow inaccurate torque of fasteners, risking wheel loss and damage.

## Commercial Highway Assembly Numbers



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