

# IRWIN CAR AND EQUIPMENT

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## IRWIN CAR AND EQUIPMENT - TECHNICAL SUPPORT SERVICES

### Maintenance & Lubrication Instructions for ET-101/102 Series Extra-High Temperature Stub Axle Wheel Assemblies

**Product Lines:** Irwin Model ET-101 3 and 5 ton capacity, 700° to 1200° F operating temperatures, and  
Irwin Model ET-102 10, 12 and 15 ton capacity, 700° to 1200° F operating temperatures

#### General Information

- Irwin **Model ET-101** and ET-102 series extra high temperature stub axle wheel assemblies (furnace car wheel assemblies) are shipped to you fully assembled, and painted in a heat-resistant “Hot Aluminum” finish, and ready for immediate installation.
- Due to the amount of room temperature play in the assemblies (which vanishes at temperature due to the thermal expansion of the various components), the assemblies ship from our factory “un-lubricated”, and need to be lubricated in the field before they are put into service.
- Designed to be exceptionally rugged and easily maintained, your Irwin wheel assemblies should provide you with years of reliable service with a minimum amount of preventive maintenance.

#### Lubrication and Maintenance

- Due to the various operating conditions into which our extra high temp wheel assemblies are placed, no set rule can be given as to the precise frequency and type of lubrication. However, it can be clearly stated that regular preventive maintenance and lubrication of the wheel assemblies will dramatically enhance the lifespan of the wheel assemblies and their core components (inner bearing race, die steel caged roller bearing, bearing spacers, etc.).
- A general but highly successful practice that Irwin has recommended for the last 50-plus years is to use a mixture of kerosene and powdered graphite. (Note: You may also use fuel oil, or any other machine oil that will not leave behind build-up or residue). This mixture should be approximately 95% kerosene and 5% powdered graphite by weight. (Some customer's successfully use mixtures with a 90/10 ratio as well).
- The frequency of adding the oil mixture depends upon operating conditions (i.e. individual wheel loads, operating temperature of the furnace, length of furnace cycle, etc.), but re-lubrication could be done after each furnace cycle if necessary. At a minimum, Irwin recommends that our extra high temperature wheel assemblies are re-lubricated at least once a week. Historically, customers who follow this regimen experience the best operation and the least wear on component parts. It is not uncommon for these wheel assemblies to have a service life of nearly a decade if they are properly maintained and not overloaded.
- It is recommended that periodically the wheel assembly should be blown out with air to make sure all lubrication lines are free of obstruction and that lubricant can flow to the bearings.
- If it is observed that the wheels are not turning freely, it is advisable to flush the bearings with straight kerosene or another good solvent.
- To remove any stubborn residue or build-up which may be hampering the operation of the wheel assemblies, the wheel assembly should be taken apart and the axle, bearings and inner bearing race should be cleaned with the solvent previously mentioned.
- DO NOT PUMP YOUR ASSEMBLIES FULL OF AN EXTREME TEMPERATURE ANTI-SIEZE COMPOUNDS, PASTES, ETC. COMPOUNDS SUCH AS THESE WILL COAGULATE, SOLIDIFY AND ULTIMATELY SEIZE THE BEARING.
- The most successful synthetic high temp lubricant that we recommend is a compound called GP250 and is manufactured by the Acheson Colloids company.

#### Recommended Lubricants

- Kerosene & Powdered Graphite (90 to 95% kerosene & 5 to 10% powdered graphite, by weight)
- GP-250

Visit us at [WWW.IRWINCAR.COM](http://WWW.IRWINCAR.COM) for detailed information on our wheel assemblies, crane wheels, industrial cars and mining equipment, as well as maintenance instructions for our entire line of wheel assemblies.