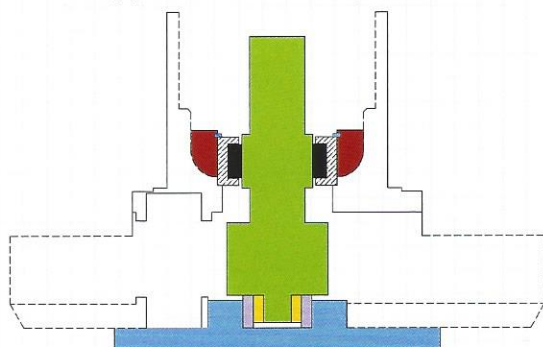
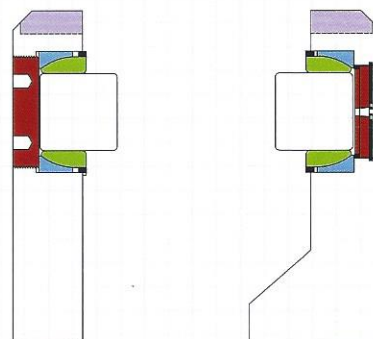


Mayo Manufacturing Co., Inc

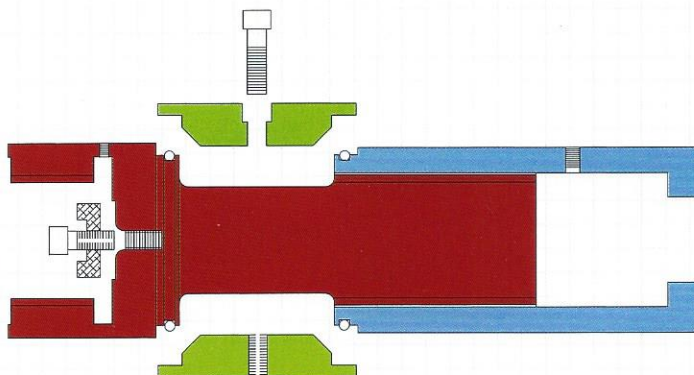
Supported Drive System



Heavy Duty Kingpin



**6 Spline
Footshaft Design**



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**Quality Through
Innovation & Technology**

MAYO
MFG. CO., INC.
SERVICE  RELIABILITY
HAND IN HAND WITH COAL

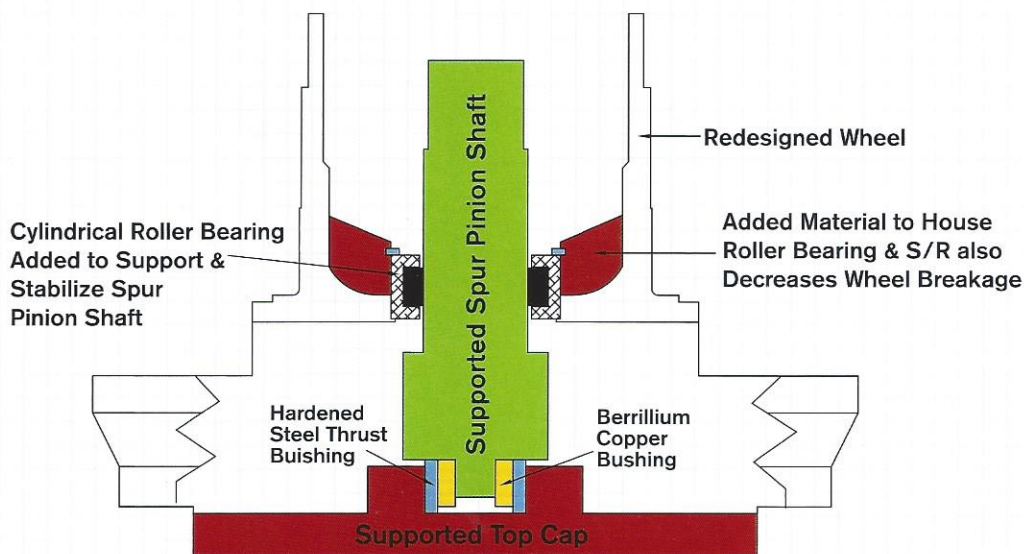
*Expect Quality
Accept the Best*

Supported Drive System

In the current design the sun shaft is unsupported except for one end entering into a constant velocity joint. Because the constant velocity joint is only supported on one end by entering a spline fit to a drive gear this allows the sun shaft to have movement. The sun shaft movement is constant during operation and change of vehicle direction. This movement causes the sun shaft gear teeth to lose full tooth contact with the planetary gear teeth installed in the wheel housing. This allows many problems to occur during normal operations and shortens the life of the complete driving unit. The sun shaft teeth wear prematurely and chip and break due to loss of full tooth contact caused by misalignment of the sun shaft angle. Also the constant velocity joint receives premature wear in the ball rotating end plus on the driven end between the splines of itself and the driving gear. With this advanced Supported Drive System you will extend the running life of the planetary gearing and in turn reduce your operating cost.

The wheel will be casted with added material to develop an internal bearing fit for a cylindrical roller bearing. Since this area of the wheel is a common breaking point the added material will also decrease the opportunity for wheel breakage.

This design has been field tested for over two years and still running.

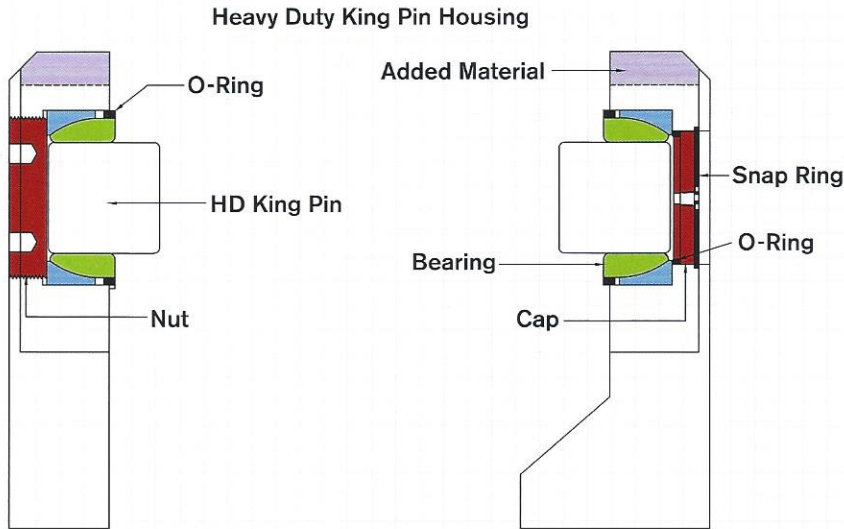


Available in all 21sc & 10sc Wheel Unit Models.

Shop
Monday - Friday: 6:30 AM - 11:30 PM

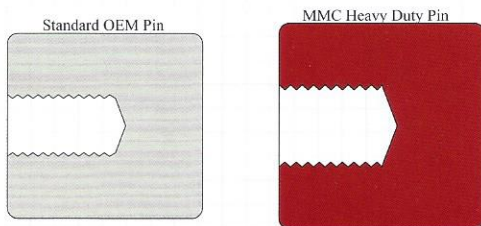
Heavy Duty King Pins

Available For All Models.

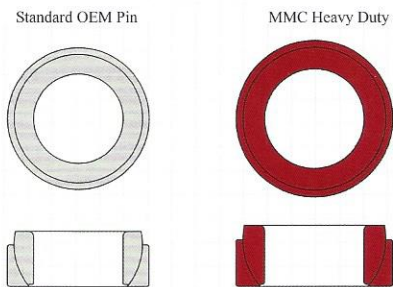


- These modifications can be made during component rebuilds or the purchase of new units from MMC.
- New assemblies are interchangeable with current wheel units without any modification to the machine.
- New base housings are casted with more steel in all areas eliminating breakage during repeated shock loads.
- Housings can be converted to HD by welding a casted ring (provided by MMC) to housing and boring ears bores to HD dimensions.

Heavy Duty King Pin Arrangement

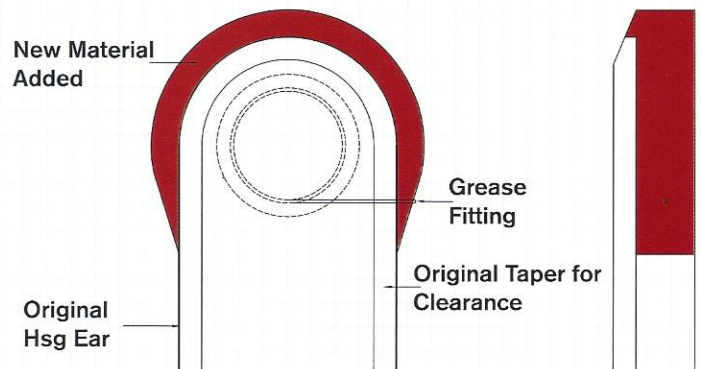


The king pin diameter and length have been increased in size to allow an increase in load capacity.



This improvement to the bearings allows a 25% to 30% increase in material loads hauled and longevity of wheel unit life.

21sc & 10sc Heavy Duty Ear



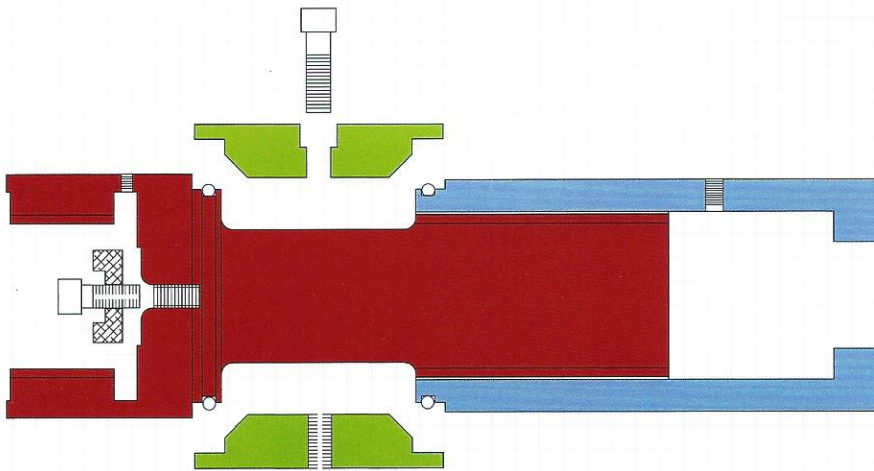
- Material is added around the bearing area of each ear to decrease breakage of the ears due to shock loads.
- Relocation of the bearing input grease port decreases the possibility of ear breakage.

All parts for conversions or new units are available from MMC.
Machining required for conversions.

Hours

- **Saturdays 6:30 AM - 12:00 NOON**

6 Spline Footshaft Design



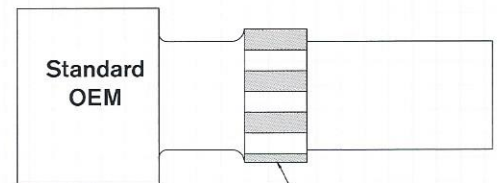
Larger splines increase wear life in high impact areas.

The 275% length increase of surface area on spline outside diameter will better support footshaft. This will decrease movement under loads and increase footshaft and coupling life.

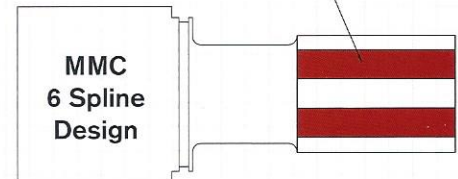
The footshaft tubing wall thickness increases by 50%. This eliminates footshaft from cracking or breaking in the bottom of splines.

6 spline footshaft assemblies will directly interchange with standard footshafts. Replacement parts can be purchased as individual items by part number from our bill of material list.

Available In All Part Numbers.

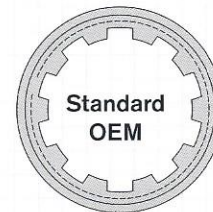


MMC 6 Spline Design uses 275% more spline surface area than OEM's design.



Coupling Ends

50% Increase
in Wall
Thickness



Footshaft Ends

Nights

Holidays

Weekends

Charlie Robison
charlie.robison@mayowv.com

304-688-0067 (Pager 361-7226)

Mitch Gillman
mitch.gillman@mayowv.com

304-946-1614 (Pager 361-3222)

David R. Mayo
david.mayo@mayowv.com

304-855-7789 (Cell 304-784-7789/Pager 361-9349)

Steve Mayo
stevemayo@yahoo.com

304-855-5863 (Cell 304-784-1729/Pager 361-5863)

Todd Thompson

304-239-2766 (Cell 304-687-0955/Pager 361-5492)

Jerry P. Dingess
jerry.dingess@mayowv.com

304-855-8870

Doug McCloud

304-855-8432

Ricky Roberts

304-583-8249 (Cell 304-687-4573/Pager 361-2338)

Ronnie Pack

304-239-6304 (Cell 304-687-6138/Pager 361-4709)

Mike Dalton
mike.dalton@mayowv.com

304-752-7361 (Cell 304-688-1547)

Pi Mayo
pi.mayo@mayowv.com