

Decrease Your Head Index Time With A New 4" Spline Shaft And Hub Conversion!

Uniloy is proud to promote our Bigger, **Better Spline Shaft and Hub Assembly!**

- The Spline Shaft is 44% thicker
- There are 47% more teeth between the Spline Shaft and Hub
- There is 23% more vertical spline engagement
- The force carried per tooth has been reduced by 54%
- The new Spline Shaft is a one piece design vs. the separate Flange and Spline Shaft of the original design

The machine models that this improved design is available for are:

90J	135S
122	150
128	189
135	189S

Benefits of These Design Improvements

(1.) Decreased Head Index Time - By As Much As 1 Second!

Total machine dry cycle time is a combination of Clamp Open, Head Index, and Clamp Close times. The "smoothness" of these movements dictate how fast they can occur. In other words, machine dry cycle time can be reduced to the point where the clamps aren't slamming and the head is not chattering. We have found that the "smoothness" of the improved design Spline Shaft and Hub allow for the following results:

	Head Index Time With New Shaft & Hub	Typical Head Index Times Currently
Models 90J, 122, 128, 135, 150, 189	.9 Second	1.4 to 1.7 Seconds
Models 135S, 189S	1.0 Second	1.8 to 2.0 Seconds

Obviously, your current Head Index Time is dependent upon the condition of our current Spline Shaft and Hub. By the way, Clamp Open time should be 1.0 second and Clamp Close time should be 1.2 seconds. If you are currently running longer times than these, its probably time to have your cylinder cushions refurbished.

(2.) A Longer Life For These Components

By increasing the diameter of the Spline Shaft, increasing the number and engagement of the teeth, and making the Spline Shaft a one piece construction, the useful life of this important and expensive assembly has also been increased.

Spline Shaft and Hub Specification Comparison

	<u>New Assembly</u>	<u>Original Assembly</u>
Spline Diameter	4.325"	3.000"
Number of Teeth	25	17
Spline Pitch	6/12	6/12
Pressure Angle (degrees)	30	30
Spline engagement in "Up" Position	4.62"	3.75"
Force Factor (Force Factor x Torque = Force Per Tooth)	0.018	0.039



Part Numbers For Conversion Parts and Replaced Parts

Clamp Stroke	7"	5"	7"
Stack Height	10"	10"	14"

Conversion Parts Required

New Spline Shaft and Hub Assembly (matched set)	10427771	10408429	10898901
New Hub Bushing Bottom Bearing Block	10427770	10408505	10710163
Trabon Bypass Block (only needed if machine has Trabon Lube)	10427963	10427963	10427963

Additional Parts to Consider When Installing a New Spline Shaft

Locating Pin	10410855	10410855	65204
Stop Buttons (need three)	10410836	10410836	10410836
Index plate locating Pin Bushing (need three)	10410952	10410952	10410952
Lower Shaft Bushing/Bearing	10412813	10412813	10412813

Old Spline Shaft and Hub Information - For Reference Only

Existing Spline Shaft and Hub Assembly	10416625	10503899	65159
Existing Hub Bushing Bottom Bearing Block	10412780	10412780	65187

Notes:

1. The new hub bushing bottom bearing block has an oil filled bronze bushing, which does not require Trabon lubrication and therefore does not have a Trabon lube connection. This is why the Trabon bypass block is required.
2. The spline shaft is a one piece 4150 steel forging, Rc 28-32.

Sales and Service

For more information on this product offering or any other machine upgrade, please contact your local Uniloy Parts Sales Representative. Trained Uniloy Service Technicians are available to assist in the installation of these packages at your facility.