

Dynamic Capacity Minimum Life.

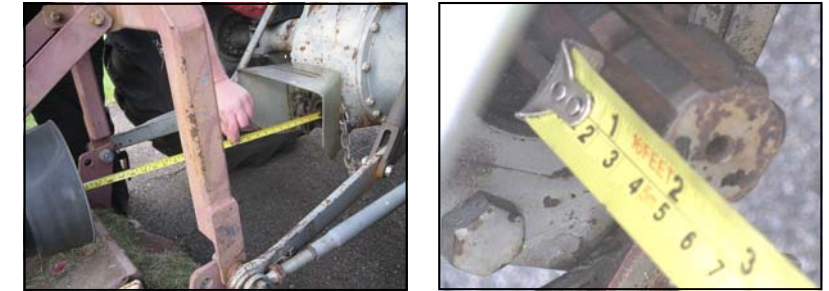
**Standard Shaft** At 5 Degrees 1000HRS. At 10 Degrees 100 HRS.

**Wide Angle Shaft** At 10 Degrees 1000HRS. At 18 Degrees 100 HRS.

SHAFT SERIES	NOMINAL POWER		NOMINAL TORQUE	MAXIMUM SPEED
	@540RPM	@1000RPM		
<p><b>= 1 SERIES</b></p>	12KW 16HP	19KW 26HP	210NM	1100 RPM
<p><b>= 2 SERIES</b></p>	16KW 21HP	26KW 35HP	270NM	1100 RPM
<p><b>= 4 SERIES</b></p>	26KW 35HP	42KW 56HP	460NM	1100 RPM
<p><b>= 6 SERIES</b></p>	48KW 64HP	77KW 102HP	830NM	1100 RPM
<p><b>= 8 SERIES</b></p>	79KW 106HP	126KW 170HP	1390NM	1100 RPM
<p><b>= W2500 SERIES</b></p>	79KW 106HP	126KW 170HP	1390NM	1100 RPM
<p><b>= W2600 SERIES</b></p>	90KW 120HP	144KW 192HP	1400NM	1100 RPM

**NOTE:** End thrust from over length shafts (or seized telescopic tubes) can destroy your tractors internal PTO drive or implement clutch and gearbox, voiding your machine warranty.

- 1) Measure groove to groove distance from implement shaft to tractor shaft with implement in shortest position.



**NOTE:** Length will vary as implement is raised or lowered

- 2) Remove safety guard from new shaft and measure length between shaft lock buttons or clamp bolts with shaft in closed position.



- 3) Required length of shaft is groove to groove length (step 1) less a minimum of 76mm (3") to allow for disconnection from tractor and prevent end thrust damage. If shaft is shorter than this, ensure that 50% of telescopic tubes overlap.



- 4) **Amount to cut off shaft;**  
Length of new shaft (step 2)  
Less groove to groove measurement (step 1)  
plus 76mm (3").  
Cut this amount off both inner and outer drive tubes. Remove burrs and grease tubes.



E.g. New shaft  
Less groove to groove requirement  
plus clearance 76mm  
**Amount to cut off**  
**This is example only**

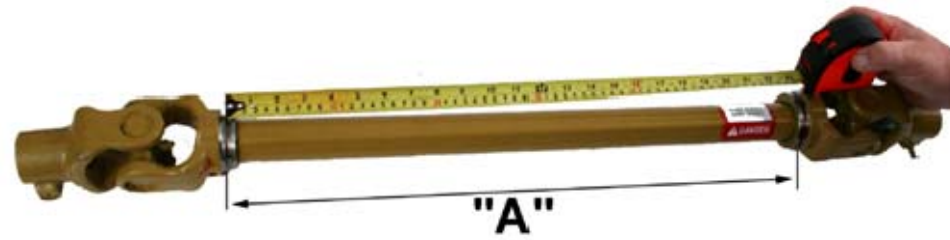
1194mm (47")  
- 890mm (35")  
+ 76mm (3")  
**380mm (15")**



**Insert your own measurements.**



1



2



3



"B" = "A" - 76mm (3")  
("B" is 76mm (3") less than "A")

4



5



6



## Shaft Operating Angle

Adjust tractor hydraulic control to minimise lift height. High lift and large shaft angle will destroy universal joint.

### All Bare-Co PTO shafts (single universal joint)

Short time running: Maximum angle 25 degrees  
Continuous operation: Maximum angle 17 degrees

### All Bare-Co Wide Angle PTO shafts (double universal joint)

Short time running (or stationary): Maximum angle 80 degrees  
Continuous operation: Maximum angle 25 degrees



## LUBRICATION

### Sliding Members

Use high temperature grease similar to HP multi-purpose chassis grease. Grease sliding members prior to assembly and after every 20 hours of use. For applications with high telescoping movement grease every 8 hours. Bare-Co shafts from 8 series upwards are equipped with a grease nipple which can be accessed by releasing the patent guard to align access hole.

### Universal Joints

Grease standard joints every 20 hours or 8 hours for severe conditions. Wide angle joints every 8 hours under wide angle conditions. Operating standard shafts at greater than 10 degrees angle or wide angle shafts at greater than 18 degrees angle dramatically reduces cross bearing life and requires more frequent lubrication.



**IMPORTANT:** Grease follows the easiest path through internal ports to the four cross bearings. Over heating and poor quality grease baked in one port will prevent grease reaching that bearing, resulting in failure of individual cross bearings.

Typical cross failure due to blocked internal grease port

## MOST IMPORTANT!

Fully open guard covers to ensure grease flows to all cross bearings  
Greasing through small guard access holes is not good enough!

## How to prevent wide angle shaft failures:

- 1) If 80 degree wide angle shafts are angled at greater than 80 degrees (Jack knifing implement with shaft stationary or rotating), the centre support ball and socket will break (not covered by warranty). To avoid over angling, fit turn limiters to your implement draw bar. Correctly fitted turn limiters will contact tractor tyre prior to over angling.
- 2) The very large centre disc lubrication cavity must be completely full before any grease transfers from the cavity to the centre support ball and socket. More than half a cartridge of grease is required to fill this cavity on initial shaft installation.
- 3) Wide angle covers should be completely removed to ensure grease flows to the centre support ball and all eight cross bearings