PTO OUTPUT SHAFT RATINGS

DIRECT MOUNTED HYDRAULIC PUMP

Hydraulic pumps connected to PTOs by means of a spline hydraulic pump mounting are rated the same as the hydraulic pump shaft by the pump manufacturer. Muncie Power PTO output shafts are made to ANSI or SAE standards. Pump manufacturers may rate their input shafts based on displacement. Be sure to select a shaft size which is adequate to handle your needs. It is recommended that you use the largest shaft available for the PTO which would be compatible to your hydraulic pump.

SHAFT LIMITS:	
SHAFT	STL
⅝" -9T	≤ 5,490
¾" -11T	≤ 10,114
⅞" -13T	≤ 16,500
1" -15T	≤ 25,650
1¼" -14T	≤ 33,300

The pump input shaft can withstand torque up to the designed shaft torque limitation (STL). This figure is based on multiplying the pump cu.in. displacement × the pump pressure. Tandem pumps are two pumps with individually calculated STLs added together not to exceed the limitation figure. Use this chart as a guide.

Check with your pump manufacturer. They will have their own ratings and the lower rating is to be used.

REMOTE DRIVE SHAFT

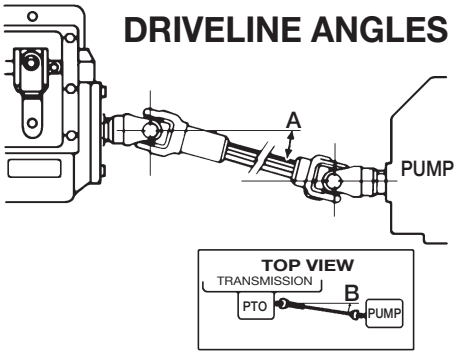
Refer to the table for the proper driveline series. Torque and horsepower are based on typical PTO driven applications and are intermittent ratings. Driveshaft applications are dependent on many factors including (but not limited to) torque, shaft length, shaft series, and speed. Tubular drive shaft are recommended for all PTO driveshaft applications. High cyclic power operations require the use of the largest output shaft and Muncie Power recommends the splined output shafts with companion flanges for these applications.

SERIES	CROSS & BEARING	MAX. HP@ 1,000 RPM
1000	MK-2X	30
1280	5-200X	60
1310	5-153X	95
1410	5-160X	125*

NOTE:
*Limited By PTO

DRIVELINE ANGLES

MAX. SPEED (RPM	MAX. TJA "A"
3,500*	5°
3,000*	5°
2,500	7°
2,000	8°
1,500	11°
1,000	12°



NOTE:
* For speeds over 2,500 RPM contact Muncie Power for Approval.

For installations with angles in the top and side views use this formula to compute the true joint angle (TJA): TJA = $\sqrt{A^2 + B^2}$

Round, keyed output shafts are susceptible to failure by high cyclic loading. Applications requiring round, keyed PTO output shafts should use the "severe duty" rating shown on this chart.

TORQUE RATINGS FOR REMOTE SHAFTS

PTO SHAFT (Round, Keyed or External Spline)	DUTY CYCLE		
	INTERMITTENT (lb.ft.)	CONTINUOUS (lb.ft.)	SEVERE (lb.ft.)
⅞" w/¼" Key	130	90	35
1" w/¼" Key	130	90	60
1¼" w/ 5/16" Key	300	210	200
1.3" -21T Spl w/Comp Flg	300	210	200
1½" -10T Spl w/Comp Flg	600	420	390

Detailed information is available for drivelines from Neapco and Spicer.

www.neapco.com
www.spicerparts.com

Maximum Drive Shaft Lengths (Tubular Shafts) - Length = CL to CL of joints

SERIES	TUBE	LENGTH	MAX. RPM
1000	1.75 × .065W	52"	2,500 RPM
1100	1.25 × .095	40"	2,500 RPM
1280/1310	2.5 × .083W	55"	2,500 RPM
1310	3 × .083W	76"	2,500 RPM