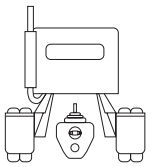
FORD TRANSMISSION

RIGHT SIDE ONLY
(LEFT SIDE TURN PAGE)



2003–2004 (DIESEL)
TORQSHIFT 4x2 AND 4x4 AUTOMATIC

PTO DRIVE GEAR DATA:

LOCATION: PLMF:
PLV: RPM:

CAUTION: MAXIMUM OUTPUT SHAFT SPEED NOT TO EXCEED 2,500 RPM.

6-BOLT TYPE	PTO MODEL NUMBER	FOOT NOTES	SHAFT ROTATION	ENGINE % HI	ENGINE % LO	ENGINE % REV	ADAPTER	SPACER	STUD KIT	SHIFT TYPE	INTERMITTENT RATING @ 1,000 RPM of PTO TORQUE	INTERMITTENT RATING @ 1,000 RPM of PTO HP
SINGLE GEAR												
SINGLE SPEED MULTI GEAR												
SH SERIES												
CLUTCH SHIFT												
1 FWD. 1 REV.												

NO PTO OPENING - SEE OTHER SIDE

ADAPTER TO CHANGE ROTATION

REFER TO ADAPTER GEAR ASSEMBLIES IN INDEX

8-BOLT TYPE	PTO MODEL NUMBER	FOOT NOTES	SHAFT ROTATION	ENGINE % HI	ENGINE % LO	ENGINE % REV	ADAPTER	SPACER	STUD KIT	SHIFT TYPE	INTERMITTENT RATING @ 1,000 RPM of PTO TORQUE	INTERMITTENT RATING @ 1,000 RPM of PTO HP
SINGLE SPEED MULTI GEAR												
1 FWD. 1 REV.												

MODEL BREAK DOWN

- PTO SERIES & HOUSING DESIGNATOR
- GEAR PITCH
- INTERNAL RATIO
- SHIFT OPTIONS (see page 7)
- ASSEMBLY ARRANGEMENT (see page 16 & 17)
- OUTPUT SHAFT (see page 7)
- SPECIAL OPTIONS (see page 7)

EX: TG 6S - U68 07 - C 1 B X

IMPORTANT: FOOTNOTES MAY AFFECT PTO SELECTION

FOOTNOTES:

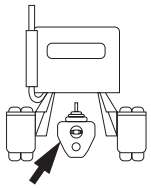
FORD TRANSMISSION

LEFT SIDE ONLY
(RIGHT SIDE TURN PAGE)

FORD 6-BOLT OPENING

2003–2004 (DIESEL)
TORQSHIFT 4x2 AND 4x4 AUTOMATIC
Footnote (1, 4, 5, 7)

PTO DRIVE GEAR DATA:
121T 14.23P 17.9° PA SPUR
LOCATION: Rear **PLMF:** 1.742
PLV: 2226 FPM **RPM:** 1,000



6-BOLT TYPE	PTO MODEL NUMBER	FOOT NOTES	SHAFT ROTATION	ENGINE % HI	ENGINE % LO	ENGINE % REV	ADAPTER	SPACER	STUD KIT	SHIFT TYPE	INTERMITTENT RATING @ 1,000 RPM of PTO TORQUE	INTERMITTENT RATING @ 1,000 RPM of PTO HP
SINGLE SPEED MULTI GEAR	FR67-F1506-H4BX	2, 9	Opp	126					Included	Power	190	55
	FR67-F1506-H4NX	8, 9	Opp	126					Included	Power	190	55

FOOTNOTES:
1. Minimum Engine Speed for PTO Operation of 6.0L DIESEL = 1,200 RPM.
2. Remote mount 1¼" Rd output shaft. Can only be used on 4x2 applications.
3. Direct Mount Pump Output. See charts below for hydraulic pump applications.
4. For PTO activation using the Ford provided APCM control, order PTO with "Q" shift option, or purchase 34T39296 wire harness separately to convert "H" shift option to "Q".
5. For 2 position rocker switch, change shifter option to "Z". Uses activation kit 43TK4524 and 34T39185.
6. PTO HP shown is based on the min. 1,200 Engine RPM and PTO output shaft at 1,512 RPM.
7. Optional overspeed protection, order SPD-1001.
8. Direct mount F series pump may require modification on pumps PF4-714 and larger for clearance to transmission shifter.
9. The FR67 has a built-in solenoid valve. The FR67 PTO replaces the FR64 PTO.

CAUTION: MAXIMUM OUTPUT SHAFT SPEED NOT TO EXCEED 2,500 RPM.

EXAMPLE:
1. Begin by determining the flow and pressure requirement of your application.
2. Next find the desired engine speed at the left of the chart and follow across to the closest pump output flow to meet your application. Follow the grid up to the top to read the basic pump series and size. This is the pump that will give you the flow you desire. You may need to alter the engine operating speed to match your desired flow.
3. If your system required 9 GPM to operate, then you would look for 9 GPM in the columns. Finding the first one under the pump PF4-606 would give you a pump which will deliver the 9 GPM you require at an engine speed of 1,200 RPM. You would also get 9 GPM if you select the PF4-368 pump, but you would need to operate the engine at 2,000 RPM.
4. After you have selected the Pump Series and size, then the complete pump model number can be ordered. The PF4 Series would follow the form of: **PF4-***-16QSRL.** (Pump rear ports are used in this installation. Order appropriate fittings separately.)

PUMP OUTPUT FLOW* AND MAXIMUM PRESSURE

		PF4-870- 2.01 cu.in./Rev		PF4-818 1.89 cu.in./Rev		PF4-714- 1.65 cu.in./Rev		PF4-606- 1.40 cu.in./Rev		PF4-502- 1.16 cu.in./Rev		PF4-424 0.98 cu.in./Rev	
		GPM	RATED PSI 2,320	GPM	RATED PSI 2,900	GPM	RATED PSI 2,900	GPM	RATED PSI 3,625	GPM	RATED PSI 3,625	GPM	RATED PSI 3,625
ENGINE SPEED	1,200	13.2	2,320	12.4	2,900	10.8	2,900	9.2	3,625	7.6	3,625	6.4	3,625
	1,300	14.3	2,320	13.4	2,900	11.7	2,900	9.9	3,625	8.2	3,625	6.9	3,625
	1,500	16.4	2,320	15.5	2,900	13.5	2,900	11.5	3,625	9.5	3,625	8.0	3,625
	1,700	18.6	2,320	17.5	2,900	15.3	2,900	13.0	3,625	10.8	3,625	9.1	3,625
	1,900					17.1	2,900	14.5	3,625	12.0	3,625	10.2	3,625
	2,100									13.3	3,625	11.2	3,625
	2,300									14.6	3,625	12.3	3,625

PLEASE NOTE:
The PF4 Series pump required for this application uses a thru-bolt design.
PF4-714 pumps and larger may need modification.
SEE FOOTNOTES

EXCEEDS MAX RPM

PUMP OUTPUT FLOW* AND MAXIMUM PRESSURE

		PF4-368- 0.85 cu.in./Rev		PF-290- 0.67 cu.in./Rev		P4-264- 0.61 cu.in./Rev		PF4-212- 0.49 cu.in./Rev		PF4-160 0.37 cu.in./Rev	
		GPM	RATED PSI 3,625	GPM	RATED PSI 3,625	GPM	RATED PSI 3,625	GPM	RATED PSI 3,625	GPM	RATED PSI 3,625
ENGINE SPEED	1,200	5,6	3,625	4.4	3,625	4.0	3,625	3.2	3,625	2.4	3,625
	1,300	6.0	3,625	4.8	3,625	4.3	3,625	3.5	3,625	2.6	3,625
	1,500	7.0	3,625	5.5	3,625	5.0	3,625	4.0	3,625	3.0	3,625
	1,700	7.9	3,625	6.2	3,625	5.7	3,625	4.5	3,625	3.4	3,625
	1,900	8.8	3,625	6.9	3,625	6.3	3,625	5.1	3,625	3.8	3,625
	2,100	9.7	3,625	7.7	3,625	7.0	3,625	5.6	3,625	4.2	3,625
	2,300	10.7	3,625	8.4	3,625	7.7	3,625	6.1	3,625	4.6	3,625

PLEASE NOTE:
If you are accustomed to ordering a hydraulic pump based on the pump model number, you may be ordering a pump larger than you require when applying that pump to this application.

To Calculate the PTO output speed:

Engine Speed × 126% = PTO output speed
Ex: Engine speed of 1,400 RPM would yield:
1,400 × 1.26 = 1,764 RPM PTO

A **6 GPM** pump (like the PF4-606) would deliver an output flow of: Disp × RPM/231
1.4 × 1,764/231 = 10.6 GPM

*** Theoretical Flow shown**

Speed shown for pump at 0 in.hg. vacuum.