

Data Sheet

Hydraulic Steering Unit

OSPU

The OSPU is the latest addition to the Danfoss dual displacement steering product line, complementing the OSPD for responsive, easily maneuverable machines of most sizes. Each unit in the complete steering range combines superior performance with the highest standards of safety, operator comfort and low noise levels.

Danfoss has designed the OSPU as an alternative to dual displacement steering units. Due to its unique flow-amplifying capability (up to 1:4), the unit delivers best-in-class manual steering over a wide application range – the compact design easing installation.

A new progressive displacement option secures smooth steering performance in both slow and fast steering modes, while maintaining optimal controllability, precision and operator comfort. The steadily increasing flow, which corresponds to steering speed, contributes to reduced operating costs.

**Features****Linear amplification versions**

- Displacement independent of steering speed
- Amplification factors: 1:2, 1:3 or 1:4

Comprehensive technical literature online
at powersolutions.danfoss.com

Progressive amplification versions

- Steady increase in progressive flow at higher steering speed
- Increases productivity and driver comfort

Installation Benefits

- Small installation dimensions

Applications

- Tractors
- Backhoe loaders
- Combines
- Telescopic handlers
- Wheel loaders etc.

OSPU program

- LS Dynamic (Load Sensing Non Reaction)

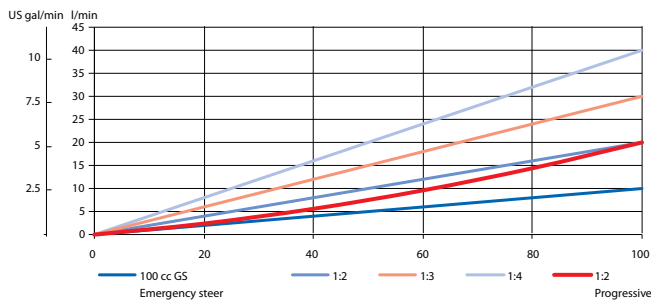
OSPU specifications

Displacement, gear sets (Emergency steer)	60, 70, 80, 100 or 125 cm ³ /rev		
Amplification factors	Linear	1:2, 1:3 or 1:4	
	Progressive	1:2 (at 100 rpm steering wheel speed)	
Displacement amplified	120 - 500 cm ³ /rev [7.32 - 30.51 in ³ /rev]		
Max. system pressure/ max. P-T port pressure	210 bar [3045 psi]*		
Max. back pressure / max T-port pressure	40 bar [580 psi]		
Max. steering flow	50 l/min [13.21 US gal/min]		
Input torque	0.8 - 4 N·m [7.08-35.40 lbf·in]		
Valve functions possible	Pressure relief valve Shock and suction valves Check valve in P Check valve function in LS		
Port options		P, T, L, R	LS
	DIN 3852-2	G 1/2	G 1/4
	ISO 6149-1	M18x1.5	M12x1.5
	ISO 11926-1	3/4-16 UNF	7/16-20 UNF

* OSPU with small gear wheel set and high pressure will have relative high slippage values (slippage will be on level, for example, with OSPC with same gear wheel set)

OSPU characteristic

Metered out flow for OSPU 100 shown with amplification factors possible.



Type	L ₁ mm [in]	L ₂ mm [in]	Weight kg [lb]
60/xxx	137 [5.39]	7.8 [0.31]	5.3 [11.68]
70/xxx	138 [5.43]	9.1 [0.36]	5.4 [11.90]
80/xxx	139 [5.47]	10.4 [0.41]	5.5 [12.13]
100/xxx	142 [5.59]	13.0 [0.51]	5.6 [12.35]
125/xxx	145 [5.71]	16.2 [0.64]	5.8 [12.79]

