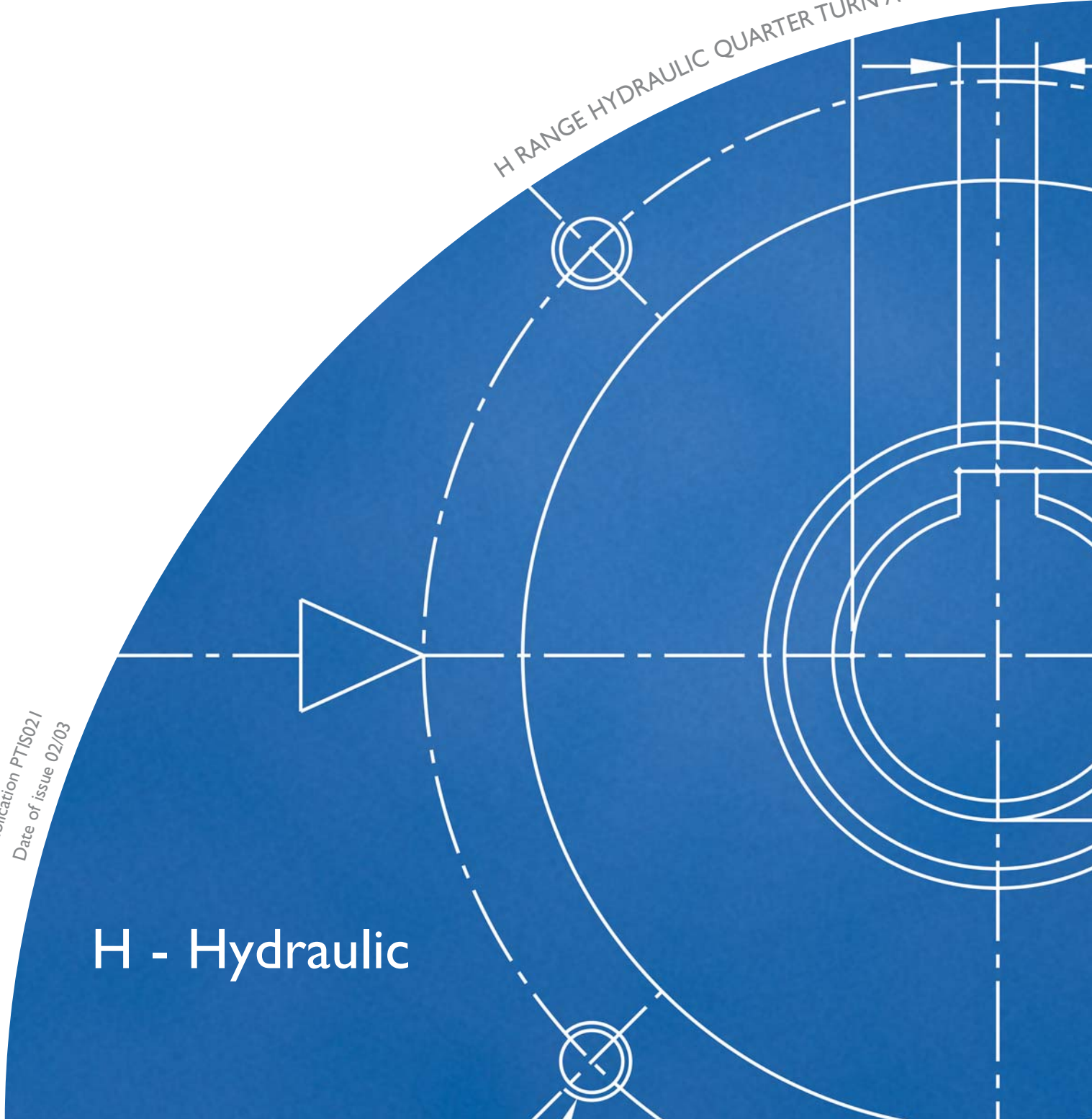


H RANGE - METRIC AND IMPERIAL TORQUE DATA

H RANGE HYDRAULIC QUARTER TURN ACTUATORS

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H - Hydraulic



H Range Actuator

Double Acting and Spring Return

Torque Output Tables

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KEY

MOP = MAXIMUM OPERATING PRESSURE

MOP is the maximum pressure that can be applied to the actuator for regular operation and will produce the maximum center body torque at the Hydraulic Break position.

MAWP = MAXIMUM ALLOWABLE WORKING PRESSURE

MAWP is the maximum pressure that may be applied to a fully stroked actuator against the travel stop.

NOTES:

1. Torque outputs marked in red indicate pressures which require piston rod stop bolts.
2. Standard actuator build is clockwise to close actuated by the full piston area.
3. For actuator models that require cylinder stop bolts at their maximum pressure, MAWP is only applicable when cylinder stop bolts are used, When cylinder stop bolts are not used MAWP is not applicable.

HYDRAULIC H DOUBLE ACTING

Model No.	Description	MOP (psi) full/ann	MAWP (psi) full/ann	Position of stroke
H25001-2	(2) Piston rod cylinders	3,500	3,500	Break Run
H25002	(1) 2 1/4 in. cylinder	2,000 2,900	3,500 3,500	Break Run
H2500201	(1) 2 1/4 in. cylinder	2,000 2,000	3,500 3,500	Break Run
	(1) Piston rod cylinder			
H25003	(1) 3 1/4 in. cylinder	900 1,100	2,000 2,200	Break Run
H2500301	(1) 3 1/4 in. cylinder	900 900	2,000 2,000	Break Run
	(1) Piston rod cylinder			
H2500302	(1) 2 1/4 in. cylinder	700 700	1,500 1,500	Break Run
	(1) 3 1/4 in. cylinder			
H25003-2	(2) 3 1/4 in. cylinder	500 500	1,000 1,000	Break Run
H32501-2	(2) Piston rod cylinders	3,500	3,500	Break Run
H32503	(1) 3 1/2 in. cylinder	1,800 2,700	3,500 3,500	Break Run
H3250301	(1) 3 1/2 in. cylinder	1,800 1,800	3,500 3,500	Break Run
	(1) Piston rod cylinder			
H32505	(1) 5 in. cylinder	900 1,000	2,000 2,100	Break Run
H3250501	(1) 5 in. cylinder	900 900	2,000 2,000	Break Run
	(1) Piston rod cylinder			
H3250503	(1) 3 1/2 in. cylinder	700 700	1,500 1,500	Break Run
	(1) 5 in. cylinder			
H32505-2	(2) 5 in. cylinder	500 500	1,000 1,000	Break Run

IMPERIAL

Torque (in.lbs) at Operating Pressure (psi)

500		1000		1500		2000		2500		3000	
full	annulus	full	annulus	full	annulus	full	annulus	full	annulus	full	annulus
2,185	-	4,195	-	6,290	-	8,390	-	10,490	-	12,590	-
1,215	-	2,330	-	3,495	-	4,660	-	5,790	-	6,995	-
6,800	4,700	13,600	9,400	20,395	14,100	27,200	18,800	27,200	18,800	27,200	18,800
3,780	2,600	7,550	5,220	11,330	7,830	15,100	10,440	15,100	10,440	15,100	10,440
6,800	-	-	-	20,400	-	27,200	-	27,200	-	27,200	-
3,780	-	-	-	11,330	-	15,100	-	15,100	-	15,100	-
14,185	12,085	28,370	24,175	28,370	28,370	28,370	-				
7,880	6,715	15,760	13,430	15,760	15,760	15,760	-				
14,185	-	28,370	-	28,370	-	28,370	-				
7,880	-	15,760	-	15,760	-	15,760	-				
-	-	-	-	-	-	-	-				
18,890	-	28,370	-	28,370	-	-	-				
10,495	-	15,760	-	15,760	-	-	-				
26,270	-	28,370	-	-	-	-	-				
14,595	-	15,760	-	-	-	-	-				
7,520	-	15,265	-	22,895	-	30,530	-	38,165	-	45,795	-
4,240	-	8,480	-	12,720	-	16,960	-	21,200	-	25,420	-
23,375	15,720	46,750	31,440	70,130	47,160	93,500	62,880	93,500	62,880	93,500	62,880
12,985	8,730	25,970	17,460	38,955	26,190	51,940	34,920	51,940	34,920	51,940	34,920
23,375	-	46,750	-	70,130	-	93,500	-	93,500	-	93,500	-
12,985	-	25,970	-	38,955	-	51,940	-	51,940	-	51,940	-
47,710	40,080	95,425	80,155	95,425	95,425	95,425	95,425				
26,510	22,265	53,015	44,530	53,015	53,015	53,015	53,015				
47,710	-	95,425	-	95,425	-	94,425	-				
26,510	-	53,015	-	53,015	-	53,015	-				
63,445	-	95,425	-	95,425	-	-	-				
35,245	-	53,015	-	53,015	-	-	-				
87,785	-	95,425	-	-	-	-	-				
48,770	-	53,015	-	-	-	-	-				

HYDRAULIC H DOUBLE ACTING

Model No.	Description	MOP (bar) full/ann	MAWP (bar) full/ann	Position of stroke
H25001-2	(2) Piston rod cylinders	240	240	Break Run
H25002	(1) 2 1/4 in. cylinder	135 195	240 240	Break Run
H2500201	(1) 2 1/4 in. cylinder	135 135	240 240	Break Run
	(1) Piston rod cylinder			
H25003	(1) 3 1/4 in. cylinder	60 75	135 150	Break Run
H2500301	(1) 3 1/4 in. cylinder	60 60	135 135	Break Run
	(1) Piston rod cylinder			
H2500302	(1) 2 1/4 in. cylinder	45 45	100 100	Break Run
	(1) 3 1/4 in. cylinder			
H25003-2	(2) 3 1/4 in. cylinder	30 30	65 65	Break Run
H32501-2	(2) Piston rod cylinders	240	240	Break Run
H32503	(1) 3 1/2 in. cylinder	120 185	240 240	Break Run
H3250301	(1) 3 1/2 in. cylinder	120 120	240 240	Break Run
	(1) Piston rod cylinder			
H32505	(1) 5 in. cylinder	60 65	135 140	Break Run
H3250501	(1) 5 in. cylinder	60 60	135 135	Break Run
	(1) Piston rod cylinder			
H3250503	(1) 3 1/2 in. cylinder	45 45	100 100	Break Run
	(1) 5 in. cylinder			
H32505-2	(2) 5 in. cylinder	30 30	65 65	Break Run

METRIC

Torque (Nm) at Operating Pressure (bar)

35		70		105		140		173		210	
full	annulus	full	annulus	full	annulus	full	annulus	full	annulus	full	annulus
247	-	474	-	710	-	948	-	1,185	-	1,422	-
137	-	263	-	395	-	527	-	654	-	790	-
768	531	1,537	1,062	2,304	1,593	3,073	2,124	3,073	2,124	3,073	2,124
427	294	853	590	1,280	885	1,706	1,180	1,706	1,180	1,706	1,180
768	-	-	-	2,305	-	3,073	-	3,073	-	3,073	-
427	-	-	-	1,280	-	1,706	-	1,706	-	1,706	-
1,603	1,365	3,205	2,731	3,205	3,205	3,205	-				
890	759	1,781	1,517	1,781	1,781	1,781	-				
1,603	-	3,205	-	3,205	-	3,205	-				
890	-	1,781	-	1,781	-	1,781	-				
2,134	-	3,205	-	3,205	-						
1,186	-	1,781	-	1,781	-						
2,968	-	3,205	-								
1,649	-	1,781	-								
850	-	1,725	-	2,587	-	3,449	-	4,312	-	5,174	-
479	-	958	-	1,437	-	1,916	-	2,395	-	2,872	-
2,641	1,776	5,282	3,552	7,923	5,328	10,564	7,104	10,564	7,104	10,564	7,104
1,467	986	2,934	1,973	4,401	2,959	5,868	3,945	5,868	3,945	5,868	3,945
2,641	-	5,282	-	7,923	-	10,564	-	10,564	-	10,564	-
1,467	-	2,934	-	4,401	-	5,868	-	5,868	-	5,868	-
5,390	4,528	10,781	9,056	10,781	10,781	10,781	10,781				
2,995	2,516	5,990	5,031	5,990	5,990	5,990	5,990				
5,390	-	10,781	-	10,781	-	10,668	-				
2,995	-	5,990	-	5,990	-	5,990	-				
7,168	-	10,781	-	10,781	-						
3,982	-	5,990	-	5,990	-						
9,918	-	10,781	-								
5,510	-	5,990	-								

HYDRAULIC H SPRING RETURN

Model No. **Description**

H25001 (1) Piston rod cylinder

H25002 (1) 2 1/4 in. cylinder

H25003 (1) 3 1/4 in. cylinder

H32501 (1) Piston rod cylinder

H32503 (1) 3 1/2 in. cylinder

H30205 (1) 5 in. cylinder

IMPERIAL / METRIC

SR
Imp / Met

Torque (in.lbs, Nm) at Operating Pressure (psi, bar)

500	35	1000	70	1500	105	2000	140	2500	173	3000	210
600	68	1,200	136	1,800	204	2,400	267	2,900	332	3,500	396
1,840	208	3,800	442	5,890	660	7,560	855	9,580	1,082	11,480	1,297
3,800	429	7,570	856	9,580	1,082	11,480	1,297	-	-	-	-
-	-	4,390	496	6,300	711	8,790	1,032	10,990	1,241	12,100	1,367
6,730	760	12,100	1,367	19,830	2,240	24,880	2,811	31,140	3,518	38,860	4,391
12,180	1,376	24,880	2,811	38,860	4,391	46,740	5,281	-	-	-	-

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