

Issue: Mast rising cylinders

	COMMENTS	Mast rising Double acting hydraulics cylinder																							
		ITEM	Requirements											Please fill all empty fields											
			Imperial					metric						metric											
	Max.	Operating pressure	2.000 psi					138 bar																	
	Max.	Test pressure	2.500 psi					172 bar																	
		Operating temp.	0° F to 100° F ambient & 100° F to 180° F system					-18° C to 37.8° C ambient & 37.8° C to 82.2° C system																	
	At least	Total stroke	375,25 “					9531,35 mm																	
		Operating fluid	Mineral oil																						
	Max.	Closed Length	129,38 inch (pin center to pin center)					3286,25 mm																	
	Max.	Extracted Length	504,63 inch (pin center to pin center)					12.817,60 mm																	
		Max. Diameter	16 inch					406,4 mm																	
	Use bolt closing method	Barrel / Main	ID	OD	Stroke	Pull lbs.	Push lbs.		ID	OD	Stroke	Pull	Push 138 b		ID	OD	Stroke	Pull	Push						
			14,50	16,00	====	=====	=====		368,30	406,40	====	=====	=====				=====	=====	=====						
	thread	1 <sup>st</sup> sleeve	ID	OD	Stroke	Pull lbs.	Push lbs.		ID	OD	Stroke	Pull	Push 138 b		ID	OD	Stroke	Pull	Push						
			13,00	14,00	92,00	=====	330.260		330,20	355,60	2336,80	=====	150 t					=====							
	thread	2 <sup>nd</sup> sleeve	ID	OD	Stroke	Pull lbs.	Push lbs.		ID	OD	Stroke	Pull	Push 138 b		ID	OD	Stroke	Pull	Push						
			11,50	12,50	92,75	=====	265.460		292,10	317,50	2355,85	=====	120 t												
	thread	3 <sup>rd</sup> sleeve	ID	OD	Stroke	Pull lbs.	Push lbs.		ID	OD	Stroke	Pull	Push 138 b		ID	OD	Stroke	Pull	Push						
			9,88	10,75	95,38	=====	207.730		250,95	273,05	2422,65	=====	94 t												
		Plunger	ID	OD	Stroke	Pull lbs.	Push lbs.		ID	OD	Stroke	Pull	Push 138 b		ID	OD	Stroke	Pull	Push						
			7,25	7,91	95,12	55.360	153.640		184,15	200,91	2416,05	25 t	71 t												
		Pin eye Barrel	Size			Design									Size			Design							
			5,25 “ (bushing)			Welded									(bushing)			Welded							
		Pin eye Plunger	Size			Design									Size			Design							
			3,53” (no bushing install.)			Machined									(no bushing install.)			Welded							
	Assy. With McGill	Wheel Assembly	Fabricated according IRI design DWG C117 097 30 Cylinder assembly ---- welded																						
		Chrome	Thick chrome 0.001”					25 microns as minimum							25 microns min.										
		Retract port	Size			Position									Size			Position							
			1 “ NPT female			plunger									_____ female			plunger							
		Extend port	Size			Position									Size			Position							
			1” NPT female			plunger									_____ female			plunger							
		Piston Sealant hard or soft	Cast iron piston ring segments or soft sealing with extended guide and stop rings.																						
		Steel	ASTM 513 High strength steel per ASTM 513 Min. yield strength 75.000 p.s.i.																						
	Max.	Internal bypass for cast iron rings	Extend Bypass for cast iron rings = 1/2 cubic inch per inch of bore diameter per minute = 7,25 cubic inch/min																						
	Ultimate	Internal bypass for seal	ZERO leakage																						
		No. of purge points	3																						
		Paint coating System	Solid epoxy system or Acrylic (Primer 75 microns, intermediate 50 microns, top coating 50 microns), Sigmacover™ 280,410 Work grey																						
		Weather proof shield	Dust and weather cover for chromed extended parts.																						
		Drawing	Detailed drawing attached ?																						