

Adaptor Pressure Ratings

DESIGN WORKING PRESSURE – Pressures as listed should be used as a guide only and not as a “standard” or “specification”.

Adaptor Pressure Ratings Applicable to Bore Size Only

Nominal Bore Dia.		Design Working Pressure		Proof Pressure		Over Pressure	
mm	ins	BAR	psi	BAR	psi	BAR	psi
5	1/8	350	5145	525	7718	1400	20580
6.3	1/4	450	6500	675	9750	1520	22000
10	3/8	380	5500	570	8250	1310	19000
12.5	1/2	310	4500	465	6750	1100	16000
14.25	9/16	289	4250	434	6375	964	14170
16	5/8	280	4000	420	6000	850	12350
19	3/4	240	3500	360	5250	750	11000
25	1	210	3000	315	4500	675	9750
31.5	1-1/4	170	2500	255	3750	530	7700
37.5	1-1/2	136	2000	204	3000	404	5940
50	2	136	2000	204	3000	404	5940
62.5	2-1/2	84	1240	126	1860	245	3596
75	3	76	1120	114	1680	216	3170

Tube Pressure Ratings Applicable to SWEPTS Only – Not Applicable to PUSH-IN SWEPTS

Outer Diameter of Tube		Design Working Pressure		Proof Pressure		Over Pressure	
mm	ins	BAR	psi	BAR	psi	BAR	psi
4.7	3/16	303.4	4400	455	6600	910	13200
6.3	1/4	391	5570	586	8500	1173	17000
10	3/8	303.4	4400	455	6600	910	13200
12.5	1/2	261	3790	392	5685	784	11370
16	5/8	209	3030	313	4545	626	9090
19	3/4	216.75	3140	324	4710	649	9420
25	1	211.65	3070	317	4600	634	9200
31.5	1-1/4	188.7	2735	282	4100	565	8200
37.5	1-1/2	173	2515	260	3770	520	7545
50	2	130	1885	195	2830	390	5655

Nut Tightening Torques

Note - Tightening torques relate to counterpart made of steel with threads lightly oiled and should be used as a guide only.

BSP Hydraulic Adaptor Connections			O.R.F.S Hydraulic Hose Connections				
Nominal Size Of Nut		Nominal Size Of Nut					
BSP Size	Tightening Torque		SAE Dash	Thread	Equivalent BSP Size	Tightening Torque	
	NM	Lbsf/ft				NM	Lbsf/ft
1/8	17	12	-4	9/16-18	1/4	24	18
1/4	34	25	-6	11/16-16	3/8	33	24
3/8	47	35	-8	13/16-16	1/2	44	35
1/2	102	75	-10	1-14	5/8	58	43
5/8	122	90	-12	1-3/16-12	3/4	84	62
3/4	149	110	-16	1-7/16-12	1	115	85
1	203	150	-20	1-11/16-12	1-1/4	189	140
1-1/4	305	225	-24	2-12	1-1/2	244	180
1-1/2	305	225	-	-	-	-	-
2	400	296	-	-	-	-	-

METRIC			JIC & SAE Connections		
Nominal Size Of Nut		Nominal Size Of Nut			
	Tightening Torque			Tightening Torque	
	NM	Lbsf/ft		NM	Lbsf/ft
M10	18	13	5/16-24	10	7
M12	20	15	3/8-24	10	7
M14	25	19	7/16-20	14	10
M16	45	33	1/2-20	20	15
M18	50	37	9/16-18	22	20
M20	70	52	5/8-18	27	20
M22	75	55	3/4-16	48	35
M26	110	81	7/8-14	81	60
M27	130	96	1-1/16-12	108	79
M33	220	162	1-3/16-12	136	100
M42	230	170	1-5/16-12	148	108
M48	350	258	1-5/8-12	173	127
-	-	-	1-7/8-12	216	158
-	-	-	2-1/2-12	334	245

Technical Information

Letter Of Conformity

All Hydraulic fittings and adaptors manufactured from steel:

BSEN 10277: 3: 1999 230MO7Pb

BSEN 10277: 3: 11SMnPb37 European Standard

B.S.P Adaptor Dimensions		B & H Standards Compatible with ISO 8434-6/BS5200	
B.S.P Adaptors DIN Spec	To	DIN 3852 Form A:2002	
B.S.P Parallel Threads	To	BSENISO228-1:2003	
N.C.B Threads	To	BSENISO228-1:2003	
B.S.P.T Threads	To	BSEN 10226-1:2004	
JIC & SAE Threads	To	B.S 1580:2007	
METRIC Threads	To	B.S 3643 Pt 2 :2007	
NPTF Threads	To	ANSI B1 20.3:1991	
Electro Plating	To	BSEN12329:2000 Fe/Zn8/CaT2	
JIC Fittings	To	SAE J514 2004 or ISO 8434-2:2007	

Compression Fittings - Manufactured according to DIN 2353 / EN ISO 8434-1

The purchaser of these adaptors must ensure that they are satisfactory for use in the application for which they are intended.

No responsibility can be accepted by the manufacturers if adaptors are wrongly applied, incorrectly or inadequately fitted, i.e. torque values, pressure requirements, non-matching threads, dry uncoiled threads etc.

These goods may not be acceptable to M.O.D requirements.



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Materials Declaration

Conflict Minerals Declaration for the Dodd-Frank Act

Burnett & Hillman fully supports the compliance with provisions of Section 1502 of the Dodd-Frank Act pertaining to the use of Tin, Tantalum, Tungsten & Gold, as well as any other derivatives thereof determined by the United States Secretary of State (Designated Minerals) originating from the Democratic Republic of Congo (DRC) and neighbouring countries. Burnett & Hillman are currently unaware of any of these Designated Minerals being used in our products. Please be assured that Burnett & Hillman will carry out adequate diligence to ensure that no Conflict Minerals will be present in our products.

REACH and RoHS (3) Compliance Declaration

Burnett & Hillman are dedicated to supplying high quality hydraulic adaptors that meet environmental regulations including RoHS (Restriction of Hazardous Substances) Directive 2002/95EC and RoHS2 Directive 2011/65/EU. This declaration incorporates EU2015/863(RoHS3).

REACH (Registration, Authorisation and Restriction of Chemicals), EU Regulation (EC) 1907/2006.

Unless otherwise agreed all materials used for parts, manufactured or supplied by Burnett & Hillman after February 2006, comply with the relevant RoHS and REACH threshold limits.

RoHS Compliance

- Hexavalent Passivate has been replaced by Trivalent Passivate (currently MacDermid HydroKlad 500)
- RoHS Annex III Exemption 6(a)-1 Lead as an alloying element in steel for machining purposes and in galvanised steel containing up to 0.35 % lead by weight. Exemption 6(a) was granted as there is no reliable alternative available. Lead is added to improve machineability of steel.

REACH Compliance

- Under the structure of REACH regulation Burnett & Hillman are manufacturers and suppliers of 'articles' to our customers, we do not manufacture 'substances' or 'preparations' and our articles do not involve the 'intentional release of substances'. Accordingly, we foresee no registration or pre-registration requirements for the products we currently supply.
- Burnett & Hillman will monitor products supplied for the occurrence of 'Substances of Very High Concern' (SVHC), as defined by REACH. This will be an ongoing process as the complete list will be released in stages.



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California Proposition 65

Burnett and Hillman products are sold worldwide, and it would therefore be difficult to determine which products will ultimately be sold or brought into California. Burnett and Hillman will not test the level of every chemical listed in Proposition 65 in any of the wide range of our products. Burnett and Hillman believe the amount of one or more of these chemicals is minimal but cannot guarantee that the levels are below the limits required by the State of California. To ensure compliance with Proposition 65 requirements, Burnett and Hillman advise that warnings for lead content are passed on to relevant parties.

Material Composition

	C	Mn	S	Pb	P	Si	Mo	N	Ni	Cr
230M07Pb/ 11SMnPb30	0.15% Max	0.90 - 1.50%	0.25 - 0.35%	0.15 - 0.35%	0.09% Max	0.05% Max	_*_	_*_	_*_	_*_
11SMnPb37	0.14% Max	1.00 - 1.50%	0.34 - 0.40%	0.20 - 0.35%	0.11% Max	0.05% Max	_*_	_*_	_*_	_*_
230M07	0.15% Max	0.90 - 1.30%	0.25 - 0.35%	_*_	0.09% Max	0.05% Max	_*_	_*_	_*_	_*_
SAE 1045	0.15- 0.25%	0.20- 0.60%	0.045% Max	_*_	0.04% Max	0.25% Max	_*_	_*_	_*_	_*_
SS 316L	0.07% Max	2.00% Max	0.03% Max	_*_	0.05% Max	1.00% Max	2.00 - 2.50%	0.11% Max	10.00 - 13.00%	16.50 - 18.50%

Burnett and Hillman manufacture from a variety of materials, sourced from UK and Europe suppliers. Details of which specific material is used are included in Certificate of Conformity, these are available F.O.C. on request. Material certificates are available for all parts, and must be specified at time of order, cost available on request. Our stock parts are manufactured from 230M07Pb/11SMnPb30, forged parts from SAE 1045.

Simon Rayner
Quality Manager