

Based on : ARGUS Catalogue

HIGH PRESSURE (250 BAR) HOSES WITH WIRE GAUGE INLAY & WITH COVER OF WEATHER PROOF NEOPRENE WITH SMOOTH SURFACE

1.0 INTENT OF SPECIFICATION :

This specification is intended to purchase assembled high pressure hose(s) line i.e. hose line(s) with end fittings.

2.0 FUNCTION :

High pressure hoses are used for providing flexible connection between Bearing & Bearing pedestal for pressurised oil from jacking oil pump . The temperature range is from - 40°C to +120°C. The hoses should exhibit minimum change in length and volume under operating pressure .

3.0 SUPPLIER :

Our collaborator M/s Siemens KWU are using with satisfaction the well proven assembled hose lines manufactured by M/s ARGUS, West Germany. Considering the prime importance of functional reliability, accuracy of inner and outer diameter, control of the textile & wire braid, the assembled hose line shall be sourced from M/s ARGUS, GERMANY or equivalent. The addresses of M/s ARGUS are given below .

- | | |
|--|---|
| 1) Argus Nederland d B.V.
NL- 6600 DEVENTER
Industrieweg - 11039
Post Bus 110 | 2) Argus Beligum P.V. BA
B - 2200 Borgerhout
115 Stenenbrug Hoek Xaveriusstr. |
| 3) Argus Gesellschaft MBH
D - 7505 Ettlingen
Goethestrasse 15
Postfach 1151 | |

All approved suppliers (as per Product Material Directory).

SUPERSEDES INVENTORY NO.





 अपनी सूची संख्या को
संबंधित करता है


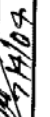


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

रचयिता/कारक एवं गोपनीय
 इस दस्तावेज में दी गई सूचना भारत ही ही अस्तित्वमान की सम्पत्ति है इसका प्रयोग एवं प्रकाशन के बिना अनुमति के बिना न किया जाए।



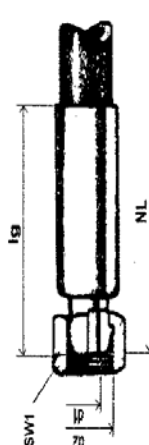


चिह्न एवं तिथि
SIGN & DATE
 INVENTORY NO.
P-5298

QAX	SK CHAUHAN	<i>SK Chauhan</i>	अनुवादक TRANSLATED BY	-	नाम NAME	दिनांक एवं हस्ताक्षर SIGNATURE & DATE	
MEMBER-PSC	N R DE	<i>N R DE</i>	निर्मोचकता WORKED BY	R K NIGAM		<i>R K Nigam</i>	25/3/04
TSX	KISHAN LAL	<i>Kishan Lal</i>	जांचकर्ता CHECKED BY	D K RAY		<i>D K Ray</i>	25-03-04
AGREED DEPTT.	नाम NAME	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	द्व्यवस्थापकता SUPERVISED BY	A K JAIN		<i>A K Jain</i>	26.03.04
स्वीकृति APPROVED : (B K BHALLA) AGM (STE)			<i>B K Bhalla</i>		ST	8.20	
REV.NO. 05			निर्माण PREPARED :	STE	जारी ISSUED :	STE -TE	दिनांक Dt: 19.05.1981
23.3.07							

दिनांक एवं हस्ताक्षर SIGN & DATE		उत्पाद मानक PRODUCT STANDARD	ST22004																						
सामग्री सूची संख्या को SUPERSEDES INVENTORY NO.			पृष्ठ 6 का 2	Page 2 of 6																					
COPYRIGHT AND CONFIDENTIAL. The information on this document is the property of Bharat Heavy Electrical Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company.		<p>4.0 DESIGNATION : The designation should be in line with the recommendation given in the suppliers Catalogue No. S8E. Hose line of hose type 2 SN, size (ND) 16 with end fitting type AO and AO & with a nominal length 1600 mm shall be designated as :</p> <p>4.1 ON DRAWING : (1) DRAWING COLUMN : ST 22004.001 (2) DESCRIPTION COLUMN : HOSE ND 16x1600 - M26x1.5 FEMALE</p> <p>4.2 FOR PLACING INDENT ON PURCHASE : HOSE WITH FEMALE END FITTINGS 2 SN 16 Ao/Ao - 1600.</p> <p>5.0 SPECIFICATION AND GENERAL DIMENSIONS : The specifications and general dimensions for the hose line shall be as per the catalogue of M/s ARGUS. The portion of the catalogue relevant to this standard is being reproduced in Annexure - I & II . The size No. is taken from table - I.</p> <p>6.0 TECHNICAL DELIVERY CONDITIONS :</p> <p>6.1 IDENTIFICATION : Each hose line shall carry a metallic identification tag having type of hose , nominal diameter, end fittings , nominal length and BHEL standard No., size No. in the following manner</p> <table border="1" data-bbox="397 1123 1380 1228"> <tr> <td>HOSE</td> <td>XXX</td> <td>XX</td> <td>X X</td> <td>XXXX</td> <td>-ST22004</td> <td>XXX</td> </tr> <tr> <td>Hose</td> <td>Nominal</td> <td>Type of</td> <td>Nominal</td> <td></td> <td></td> <td>Size</td> </tr> <tr> <td>Type</td> <td>diameter</td> <td>end fittings</td> <td>length</td> <td></td> <td></td> <td>No.</td> </tr> </table> <p>6.2 SHELF LIFE : The vendor will indicate shelf life of Hose during which it can be stored in original packing without any detriment to Hose. This period will not be less than 10 (ten) years, during which hose shall retain full capabilities for intended service.</p> <p>6.3 TESTING REQUIREMENTS : The supplier shall carry out the quality tests & checks listed below and as per the agreed quality plan.</p> <p>The hoses & hose assembly alongwith the end fittings are to be tested at the suppliers works, and shall form part of the test certificates :-</p>			HOSE	XXX	XX	X X	XXXX	-ST22004	XXX	Hose	Nominal	Type of	Nominal			Size	Type	diameter	end fittings	length			No.
	HOSE	XXX	XX	X X	XXXX	-ST22004	XXX																		
Hose	Nominal	Type of	Nominal			Size																			
Type	diameter	end fittings	length			No.																			
स्वत्वाधिकार एवं गोपनीय इस प्रलेख में दी गई सूचना भारत भारती इलेक्ट्रिकल लिमिटेड की संपत्ति है इसका प्रयोग एवं आगमन बिना इस लिखित अनुमति के बिना न होना चाहिए।																									
दिनांक SIGN & DATE 																									
सामग्री सूची संख्या INVENTORY NO. P-5298	REV. NO. 05	निर्माणकर्ता WORKED BY R K NIGAM		25.3.04																					
		जांचकर्ता CHECKED BY D K RAY		25.03.04																					

दिनांक एवं हस्ताक्षर SIGN & DATE		उत्पाद मानक PRODUCT STANDARD	ST22004 पृष्ठ 6 का 3 Page 3 of 6
सुपरसेड्स इन्वेंटरी नम्बर सुपरसेड्स इन्वेंटरी नम्बर	<p>(1) Dimensional checks - To conform to ^{SAE 100 R2} Annexure - I & II <i>are indicative only</i>)</p> <p>(2) Change in length - To conform to SAE 100R2</p> <p>(3) Proof Test - To conform to SAE 100R2 (Proof pressure given in the annexure - I are only indicative. Proof load test shall be carried out for minimum 5 minutes).</p> <p>6.4 TYPE TESTS :</p> <p>In addition to above mentioned tests, following type tests to be carried out for each diameter & make once in every year. In case these are already carried out once in every year, then Tests Results to be submitted:-</p> <p>(1) Oil Resistance test (on bare hose) - To conform to SAE 100R2.</p> <p>(2) Impulse test (on bare hose) - To conform to SAE 100R2.</p> <p>(3) Burst Test (on hose assembly) - To conform to SAE 100R2 (Minimum Burst Pressure given in the annexure - I are only Indicative).</p> <p>The methods for testing shall be as per SAE J343.</p> <p>Acceptance Norm for Burst Test : Assembled Hose shall not leak or fail and end-fittings should not fly-off or leak below minimum burst pressure. In case any type test fails, all type tests will be repeated on 3 (randomly selected by BHEL) hoses, and in none of these type tests should fail.</p> <p>6.5 TEST CERTIFICATE :</p> <p>6.5.1 Routine Tests : Test certificate as per clause 6.3 - (1), (2) & (3) above.</p> <p>6.5.2 Type Tests : Test certificate as per clause 6.4 - (1), (2) & (3) above.</p> <p>6.5.3 Compliance Certificate for Shelf Life as per clause 6.2 above.</p> <p>6.6 PACKING & CONSERVATION :</p> <p>The hose line shall be suitably packed & conserved to avoid damage during transit and prolonged storage (upto entire shelf life).</p> <p>6.7 CROSS REFERRED STANDARDS :</p> <p>(i) SAE 100R2 (ii) SAE J343 (iii) DIN 20022 Part-2 (iv) ISO 1436 (v) DIN 7631&7647 (vi) DIN 3901&3902</p>		
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दिनांक एवं हस्ताक्षर SIGN & DATE			
सुपरसेड्स इन्वेंटरी नम्बर INVENTORY NO.	REV. NO. 05	निर्माणकर्ता WORKED BY	R K NIGAM  25.3.04 जांचकर्ता CHECKED BY D K RAY  25.03.04

INVENTORY NO. P-5298	स्वत्वाधिकार एवं गोपनीयता This document is the property of Bharat Heavy Electricals Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company.	SUPERSEDES INVENTORY NO.	SIGN & DATE 
INVENTORY NO. P-5298	REV. NO. 05	2SN	SIGN & DATE 
उत्पाद मानक PRODUCT STANDARD			
ST 22004			
पृष्ठ 6 का 4 Page 4 of 6			
Annexure-I Ultra High Pressure Hose DIN 20022 Part-2 corresponding to ISO 1436 and SAE 100R2 AT Inner Tube Cover : Buna - N Reinforcement : Weather proof Neoprene with smooth surface. Reinforcement : Double diagonal braid of high tensile wire Temperature range : From -40 °C to + 120 °C Without protective sleeve, flame resistant up to a working pressure of 20 bar according to the "German Lloyd" regulations.			
			
निर्माणकर्ता WORKED BY R K NIGAM	जांचकर्ता CHECKED BY D K RAY	25.3.04	25.03.06
ND	d1 mm	Min. Bend. Radius mm	Working Pressure dynamic bar
5	4.8	80	415
6	6.3	90	400
8	8	100	350
10	10	120	330
13	13	140	275
16	16	160	250
20	19	200	215
25	25	250	165
32	31.8	360	125
40	38.1	450	90
50	50.8	560	80
60	60	650	80
1650	990	1650	660
1600	960	1600	600
1400	840	1400	510
0.537	795	1320	390
0.607	1100	1100	400
0.751	1000	1000	400
0.891	850	850	260
1.083	650	650	200
1.332	500	500	145
2.325	360	360	90
2.880	320	320	80
3.143	320	320	130
3.476	320	320	195

दिनांक एवं हस्ताक्षर SIGN & DATE	SUPERSEDES INVENTORY NO.	भारतीय सूची संख्या को अधिकारिता दर्शाता है	COPYRIGHT AND CONFIDENTIAL The information on this document is the property of Bharat Heavy Electrical Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company	स्वत्वाधिकार एवं गोपनीय इस दस्तावेज में दी गई सूचना भारत भारती इलेक्ट्रिकल लिमिटेड की संपत्ति है इसका प्रयोग एवं आरक्षण एवं से किसी भी तरह प्रयोग, जो कि कंपनी के हित में वाणिज्यिक नहीं न किया जाए।	दिनांक एवं हस्ताक्षर SIGN & DATE 
	उत्पाद मानक PRODUCT STANDARD			ST 22004	
Annexure - II A0 Metric female For hoses : 2 TE, 3 TE, 1 SN, 2 SN and 4 SP Fitting A0 mating with : Flare (60°) DIN 7631 and 7647 up to ND 16 (from ND 20 fitting C 0) Flare (24°) DIN 3901 and 3902 L.P. series Flare 30° L.P. series					पृष्ठ 6 का 5 Page 5 of 6
					
भारतीय सूची संख्या INVENTORY NO. P-5298	REV. NO. 05	निर्माणकर्ता WORKED BY R K NIGAM  25.3.04	जांचकर्ता CHECKED BY D K RAY  25.03.04		
ND	RA mm	d ₁ mm	d ₂ mm	lg mm	SW1 mm
5	6	3	M12x1.5	46	17
6	8	4	M14x1.5	46	19
8	10	5.5	M16x1.5	46	22
10	12	7.5	M18x1.5	48	24
13	15	10	M22x1.5	50	30
16	18	13	M26x1.5	56	32
20	22	15.5	M30x2	61	36
25	28	21	M26x2	68	41
32	35	28	M45x2	100	50
40	42	35	M52x2	108	60

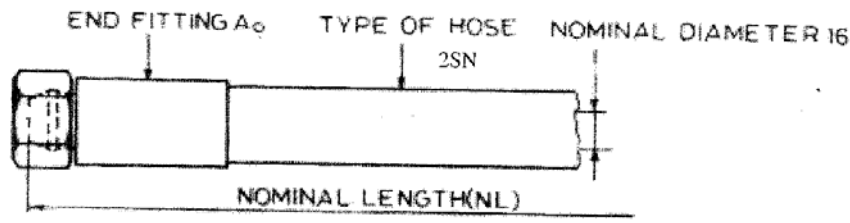
समग्री सूची संख्या को
SUPERSEDES
INVENTORY
NO.

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खलाधिकार एवं गोपनीय
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हस्ताक्षर एवं दिनांक
SIGN & DATE
[Signature]

समग्री सूची संख्या
INVENTORY NO.
P-5298



HOSE SIZE	TYPE OF HOSE	END FITTING	SIZE No.
DN 16x1600	2 SN	A ₀ / A ₀	001
DN 16x2200	2 SN	A ₀ / A ₀	002
DN 16x2500	2 SN	A ₀ / A ₀	003
DN 16x1800	2 SN	A ₀ / A ₀	004
DN 16x1200	2 SN	A ₀ / A ₀	005
DN 6x2500	2 SN	A ₀ / A ₀	006
DN 16x2700	2 SN	A ₀ / A ₀	007
DN 16x2000	2 SN	A ₀ / A ₀	008

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	जांचकर्ता CHECKED BY	DKRAY	<i>[Signature]</i>	25.03.04