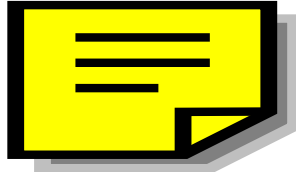




Ministry of Defence

Defence Standard



81-42/Issue 1

26 March 1982

**REELING MACHINES CABLE HAND;
APPARATUS CABLE LAYING;
REELS CABLE AND DRUMS CABLE FOR
FIELD USE**

OBSOLESCENT

**THIS DEFENCE STANDARD WILL NOT BE UPDATED AND IS
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AMENDMENT RECORD

AMENDMENT NUMBER AND DATE	SIGNATURE AND DATE WHEN AMENDMENT INSERTED

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REELING MACHINES CABLE HAND; APPARATUS CABLE LAYING;
REELS CABLE AND DRUMS CABLE FOR FIELD USE

This Defence Standard supersedes Standard Stores Memorandum (Land Service) No 5-9 issue 2 Reeling Machines Cable Hand, dated 1st January 1964 and Standard Stores Memorandum (Land Service) No 15-1 issue 2 Drums Cable and Reels Cable dated 1st January 1964

- 1 This Defence Standard lists Reeling Machines Cable Hand, Apparatus Cable Laying, Reels Cable and Drums Cable to be used by the Ministry of Defence.
- 2 Contracts for the supply of items listed as standard ranges in this Standard will only be given to firms which are on the Defence Contractors list.
- 3 Tables IA and IB list the standard ranges of Reeling machines and Reels/Drums cable to be used for all future requirements. There are no Table II items.
- 4 Tables IIIA and IIIB list items that are no longer to be provisioned. Replacement items are shown where applicable.
- 5 HM Government specifications/drawings referred to in this Standard are now associated with this Standard and any alteration to them affecting function, material, or interchangeability must also be reflected in this Standard. Holders of such specifications/drawings should therefore endorse them accordingly and notify the Directorate of Standardization of any change requiring the amendment of this Standard.
- 6 This Standard uses Imperial units to describe items which are necessary for use in Defence equipment but which do not meet Ministry of Defence metrication requirements. For such items appearing in the Defence Standard, the approved metric equivalent of these units, to an appropriate accuracy of conversion and in conformity with the requirements of DEF STAN 00-11, has been added in brackets for information only.
- 7 This Standard has been agreed by authorities concerned. It is to be implemented, wherever practicable, in all designs, contracts, orders etc commencing after its date of publication. If a difficulty arises which prevents application of the Defence Standard, the Directorate of Standardization shall be informed so that a remedy can be sought.
- 8 Any enquiries regarding this Standard in relation to an invitation to tender or a contract in which it is invoked are to be addressed to the responsible technical or supervising authority named in that invitation to tender or contract.

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NOTES APPLICABLE TO TABLES

- 1 When only a Service Management code appears in the Navy column, the full Navy number is the last seven digits of the NATO Stock Number prefixed by that code, eg 0248/943-3509.
- 2 When only a Service Management code appears in the Army column, the full Army number is the NATO Stock Number prefixed by that code, eg Y1 3895-99-901-7281.
- 3 When only a Service Management code appears in the RAF column, the full RAF number is the last seven digits of the NATO Stock Number prefixed by that code, eg 10G/1040236 (the number is not hyphenated)
- 4 - indicates that the column heading does not apply.
- 5 -- indicates that at the date of publication of the Standard, the Service concerned does not use the item.
- 6 + indicates that a NATO Stock Number has not been allocated to the item.
- 7 Abbreviations used in the Tables:

Abbreviation	Meaning
M/C	Machine
DIMS	Dimensions
Mtg	Mounting
Nom	Nominal
R	Rigid
C	Collapsible

- 8 Drawings referred to in this Standard are obtainable from:
- Portsmouth Aviation Ltd
The Airport
Portsmouth PO3 5PF
- 9 The figures, shown on pages 8 to 15 of this Standard, are sketches from the general arrangement drawings and are not intended to be used for any purpose other than identification by intending users.

TABLE 1A. STANDARD RANGE
REELING MACHINES CABLE HAND

PAGE ITEM NO	NATO STOCK NUMBER 3895-99-	SERVICE MANAGEMENT CODE OR DOMESTIC REFERENCE NUMBER			ITEM NAME	DESCRIPTION										TYPE OF FRAME	WEIGHT; lbs		DRAWING NUMBER	FIG NO
		NAVY ARMY RAF				MAXIMUM DIMENSION; INCHES							M/C	PACKAGED						
						REEL HELD		SHAFT	LENGTH	WIDTH	HEIGHT									
						CHEEK DIA	OVERALL WIDTH													
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)	(l)	(m)	(n)	(p)	(q)	(r)	(s)				
1	223-3097	--	Y1	3895	REELING M/C CABLE HAND	-	10 (254)	1 x 1 (25.4 x 25.4)	40 (1016)	-	-	R	11 (5)	-	1T/D202661	1				
2	901-7281	--	Y1	3895	REELING M/C CABLE HAND	30.8 (782.3)	18 (457.2)	1 x 1 (25.4 x 25.4)	33.5 (850.9)	32.2 (817.9)	32 (812.8)	C	-	-	SD/D192003	2				
3	104-0236	--	Y1	10G	REELING M/C CABLE HAND	24 (609.6)	11.63 (295.4)	1 x 1 (25.4 x 25.4)	35.13 (899.3)	32.25 (819.2)	36 (914.4)	C	59 (26.8)	99 (45)	BOOK4372	3				
4	105-7165	--	Y1	--	REELING M/C CABLE HAND	16 (406.4)	10.375 (263.5)	1 x 1 (25.4 x 25.4)	19 (482.6)	14 (355.6)	43 (1092.2)	R	82 (37.3)	165 (75)	1E/D60119	4				
5	105-5960	--	Y1	3895	REELING M/C CABLE HAND	15 (381)	6.6 (167.64)	1 x 1 (25.4 x 25.4)	18.85 (478.8)	3.5 (88.9)	21.75 (552.5)	R	12 (5.5)	-	1T/D197315	5				

Notes: 1 The figures in parenthesis are in mm and kg respectively.

2 Common user names are used as titles to the figures on pages 8, 9, and 10.

TABLE IIIA. ITEMS NO LONGER TO BE PROVISIONED
REELING MACHINES CABLE HAND; APPARATUS CABLE LAYING; HOLDERS
CABLE REEL; BARROWS DRUM AND AXLES CABLE REEL

PAGE ITEM NUMBER	NATO STOCK NUMBER	SERVICE MANAGEMENT CODE OR DOMESTIC REFERENCE NUMBER			ITEM NAME	REPLACEMENT ITEM
		NAVY	ARMY	RAF		
(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	3895-99-100-0060	-	Y3	-	HOLDER CABLE REEL	-
2	3895-99-100-0541	-	Y3	-	AXLE CABLE REEL	-
3	3895-99-100-0542	-	Y3	-	HOLDER CABLE REEL	-
4	3895-99-100-1696	-	Y3	-	AXLE CABLE REEL	-
5	3920-99-446-5340	-	Y1	-	BARROW DRUM	-
6	6115-99-452-3503	-	X2	-	FRAME MTG	-
7	6230-99-461-7310	-	X1	-	STAND CABLE DRUM	-
8	3895-99-462-9781	-	Z1	-	LAYER CABLE	-
9	3895-99-943-3505	-	Y3	-	AXLE CABLE REEL	-
10	3895-99-943-3506	-	Y3	-	HOLDER CABLE REEL	-

TABLE 1B. STANDARD RANGE
REELS CABLE AND DRUMS CABLE. FOR FIELD USE

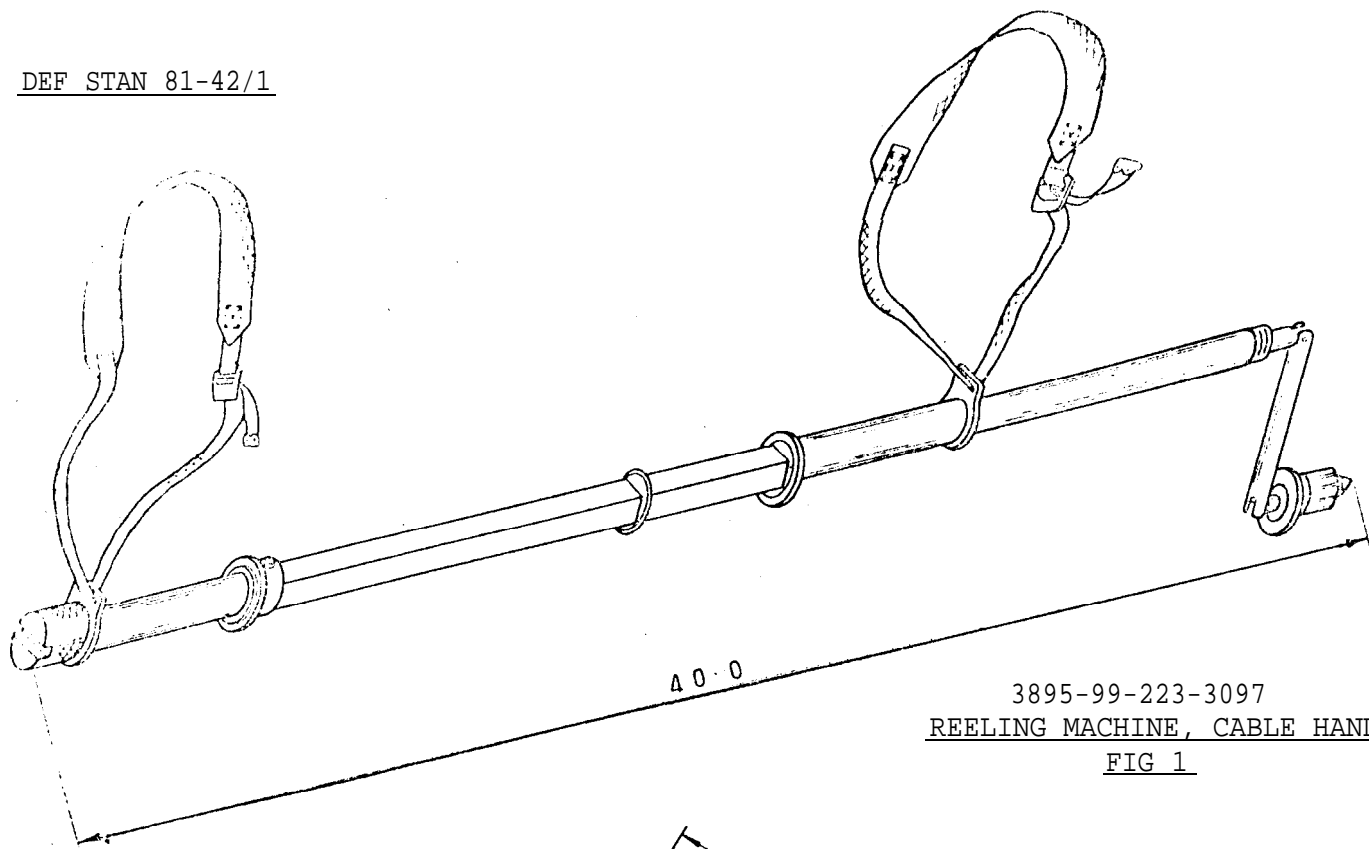
PAGE ITEM NO	NATO STOCK NUMBER 8130-99-	SERVICE MANAGEMENT CODE OR DOMESTIC REFERENCE NUMBER			ITEM NAME	MATERIAL	MAX DIMS: INCHES			MAX WEIGHT OF CABLE (lbs)	DRAWING REFERENCE	FIG NO	ASSOCIATED ITEMS IN TABLE 1A	REMARKS
		NAVY	ARMY	RAF			SHAFT APPERTURE	CHEEK DIA	OVERALL WIDTH					
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(k)	(l)	(m)	(n)	(p)	(q)
1	413-2710	--	Y3	8110	DRUM CABLE	METAL	1 x 1 (25.4 x 25.4)	26.5 (673.1)	18 (457.2)	175 (385)	SD/C173688	6	ITEM 1	COUPLER STOWAGE PROVIDED FOR 4 COUPLERS
2	901-2281	--	Y3	--	DRUM CABLE	METAL	1 x 1 (25.4 x 25.4)	20 (508)	18 (457.2)	87.5 (192.5)	SD/C193400	7	ITEM 1	COUPLER STOWAGE PROVIDED FOR 4 COUPLERS
3	652-1721	--	A	--	DRUM CABLE	METAL	1 x 1 (25.4 x 25.4)	20 (508)	18 (457.2)	-	SD0/254746	8	ITEM 1	COUPLER STOWAGE PROVIDED FOR 4 COUPLERS
4	632-1989	--	Y3	--	DRUM CABLE	METAL	1 x 1 (25.4 x 25.4)	19.25 (489)	7.25 (184.2)	52 (114.4)	SD/D85410	9	ITEMS 1 AND 2	-
5	100-6560	--	Y3	5E	REEL CABLE	METAL	1 x 1 (25.4 x 25.4)	16 (406.4)	10.12 (257)	43 (94.6)	IRES/M/3973	10	ITEM 1	-
6	222-8688	--	Y3	--	CABLE REEL ASSEMBLY	METAL	-	16 (406.4)	8.5 (215.9)	52 (114.4)	1T/D202650	11	-	SLIP RING ASSY AND REWIND FACILITY
7	977-0277	--	--	--	REEL CABLE	METAL	1 x 1 (25.4 x 25.4)	13 (330.2)	7.2 (182.9)	-	SD1/266911	12	ITEMS 1 AND 2	-
8	413-2659	--	Y3	8110	REEL CABLE	METAL	1 x 1 (25.4 x 25.4)	13 (330.2)	6.25 (158.8)	26 (57.2)	SD/C155157	13	ITEMS 1, 2 AND 3	1/2 MILE D10 DISPENSER
9	943-3509	0248	Y3	--	REEL CABLE	METAL/ WOOD	0.625 x 0.625 (15.9 x 15.9)	11 (279.4)	6.5 (165.1)	14 (30.8)	IRES/M/4213	14	-	EARTHING FACILITY
10	413-2364	--	Y3	--	REEL CABLE	METAL/ WOOD	0.5 dia (12.7)	8.375 (212.73)	2.8125 (71.4)	-	IRES/M/525	15	-	-

Notes: 1 The figures in parenthesis are in mm and kg respectively.

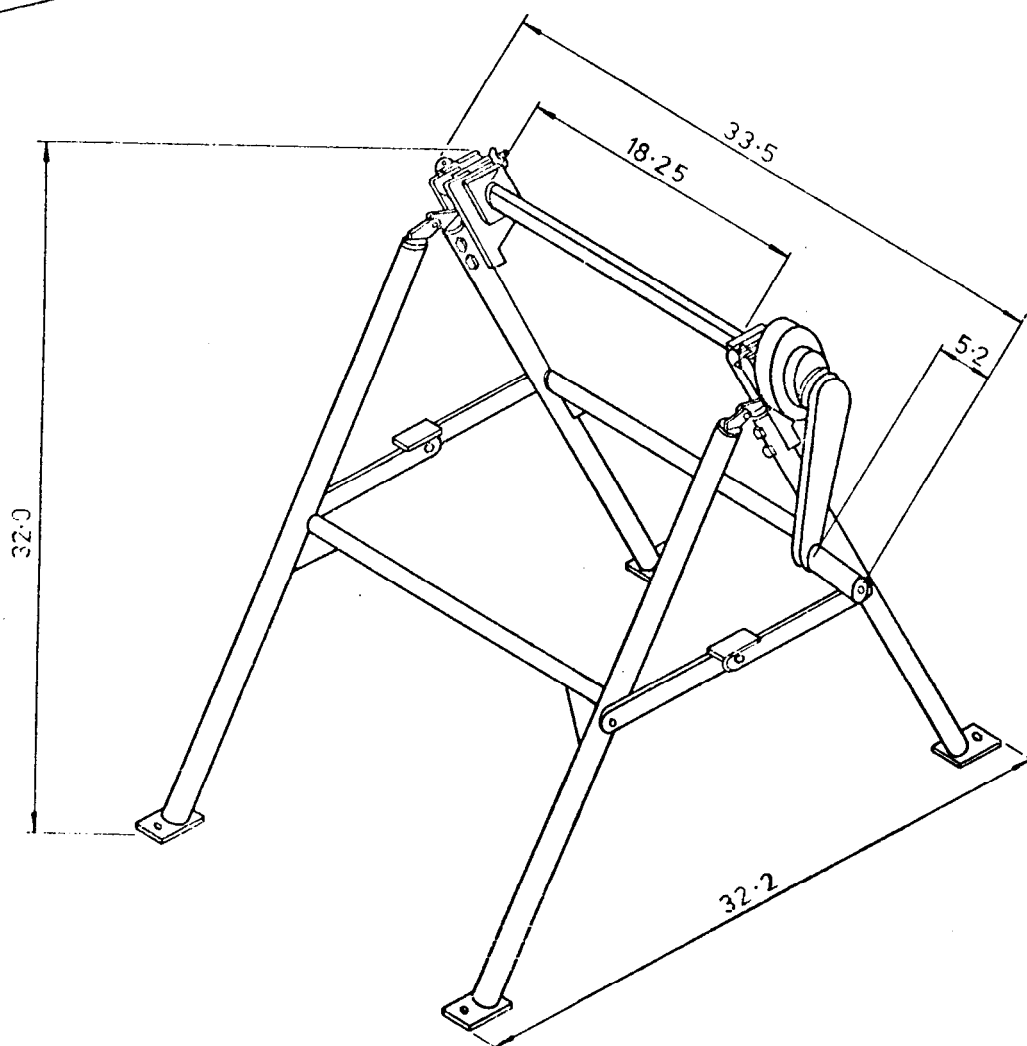
2 Common user names are used as titles to the figures on pages 10 to 15.

TABLE IIIB. ITEMS NO LONGER TO BE PROVISIONED
REELS CABLE AND DRUMS CABLE

PAGE ITEM NUMBER	NATO STOCK NUMBER 8130-99-	SERVICE MANAGEMENT CODE OR DOMESTIC REFERENCE NUMBER			ITEM NAME	REPLACEMENT ITEM	CROSS REFERENCE TO TABLE IB
		NAVY	ARMY	RAF			
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	-	-	YC 00433	-	REEL CABLE ASSY	8130-99-222-8688	Item 6
2	412-5484	-	Y3	-	DRUM CABLE	-	-
3	100-0022	-	Y3	-	DRUM CABLE	-	-
4	100-0543	-	X2	-	DRUM CABLE	-	-
5	100-0544	-	Y3	-	DRUM CABLE	-	-
6	100-0910	-	Y3	10AR	DRUM CABLE	-	-
7	106-2754	-	Y3	-	REEL CABLE	8130-99-100-6560	Item 5
8	901-2335	-	Y3	-	DRUM CABLE	-	-
9	943-3507	-	-	5E	REEL CABLE	8130-99-901-2281	Item 2
10	943-3508	-	Y3	-	REEL CABLE	-	-



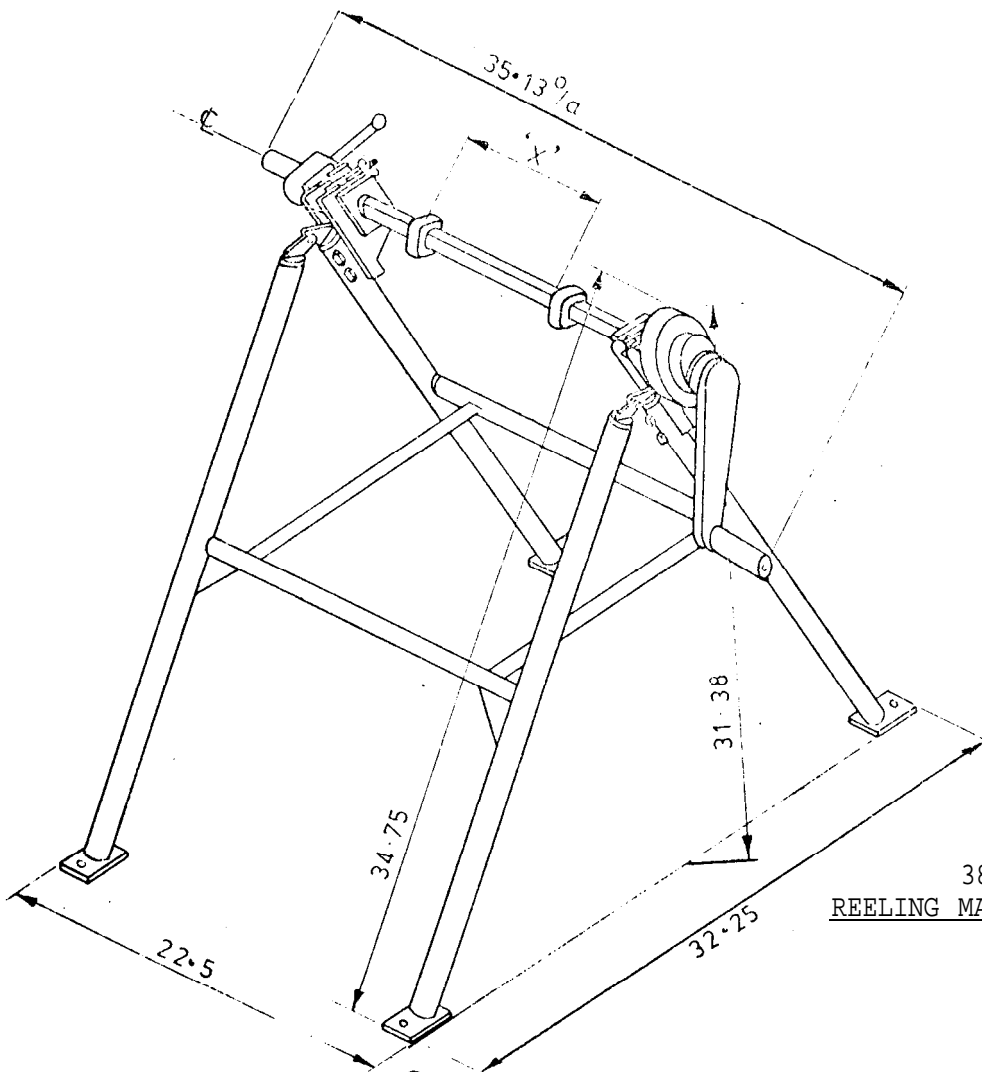
3895-99-223-3097
REELING MACHINE, CABLE HAND
FIG 1



3895-99-901-7281
REELING MACHINE, CABLE HAND NO 12
FIG 2

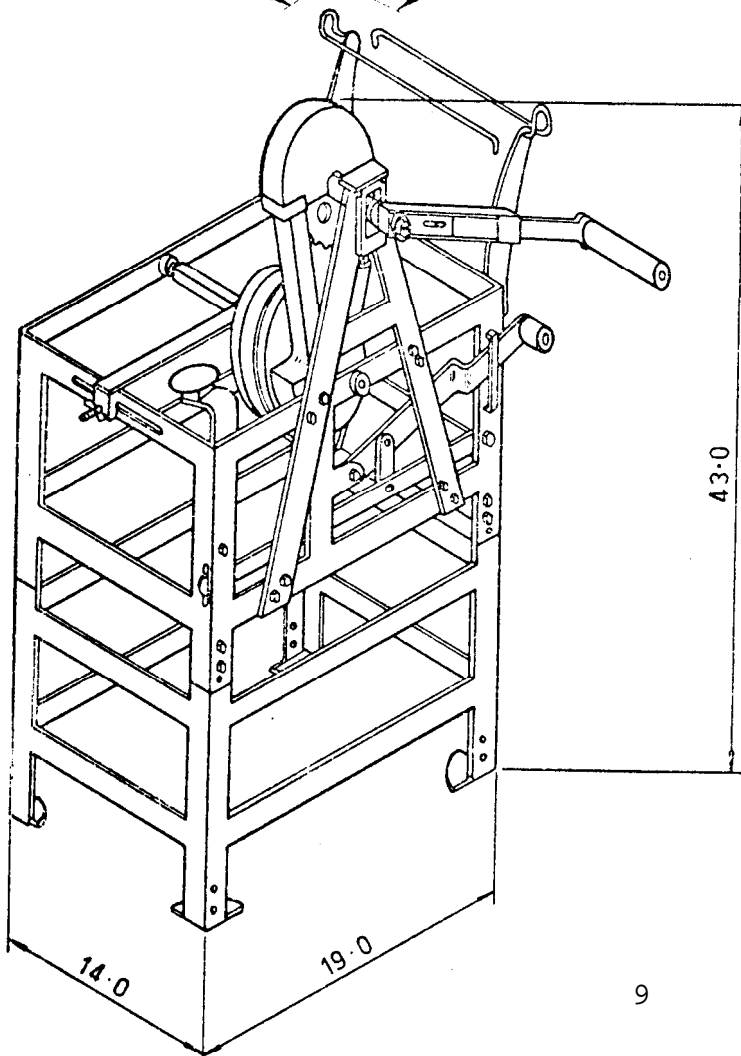
DIMENSIONS IN INCHES

DEF STAN 81-42/1



POSSIBLE DIMS
BETWEEN COLLAR FACES
DIM 'X'
10.13"
13.13"
11.63"

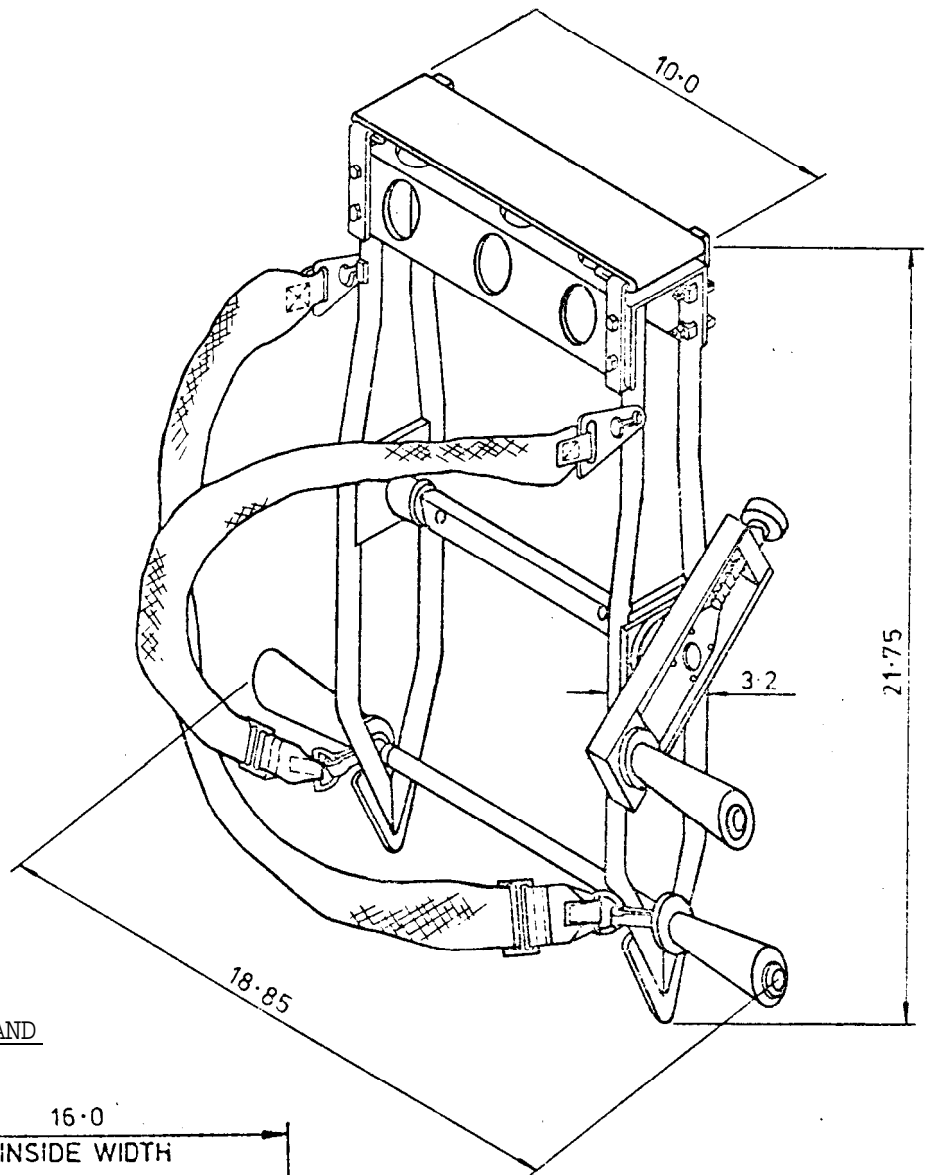
3895-99-104-0236
REELING MACHINE, CABLE HAND NO 11
FIG 3



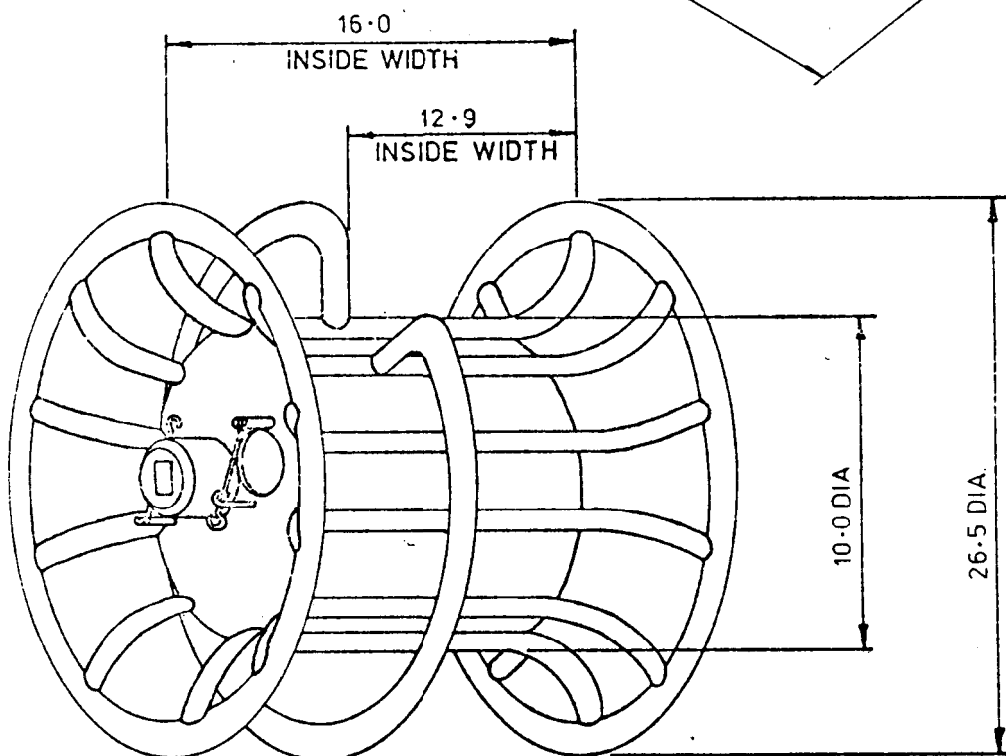
3895-99-105-7165
REELING MACHINE, CABLE HAND NO 3 MK3
FIG 4

DIMENSIONS IN INCHES

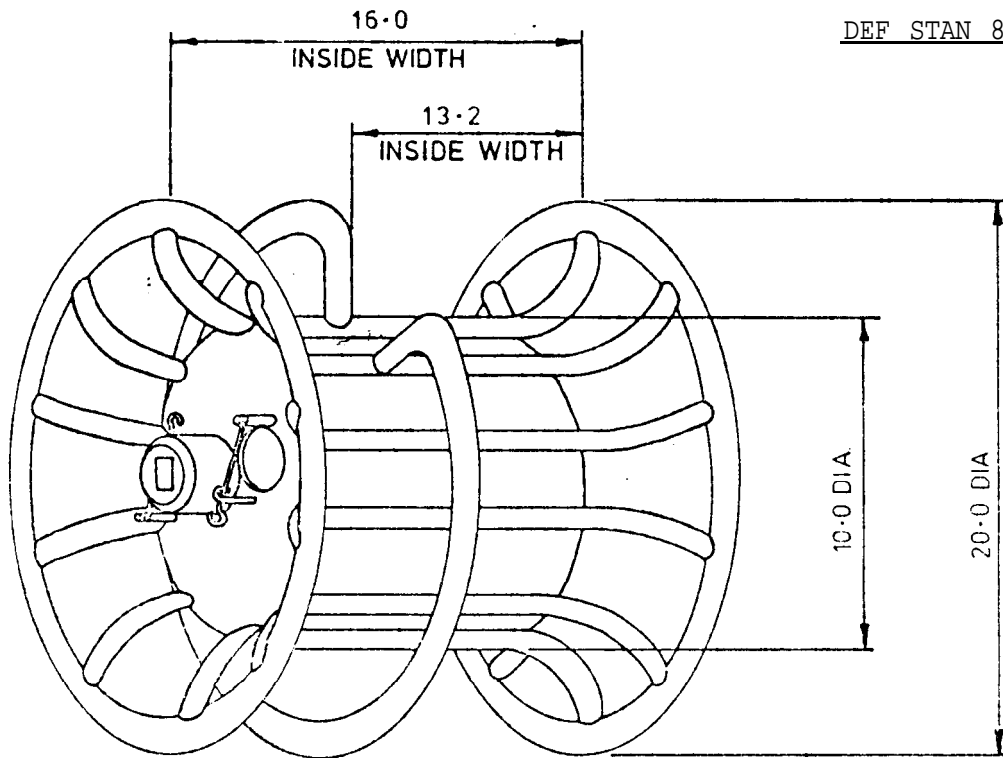
DIMENSIONS IN INCHES



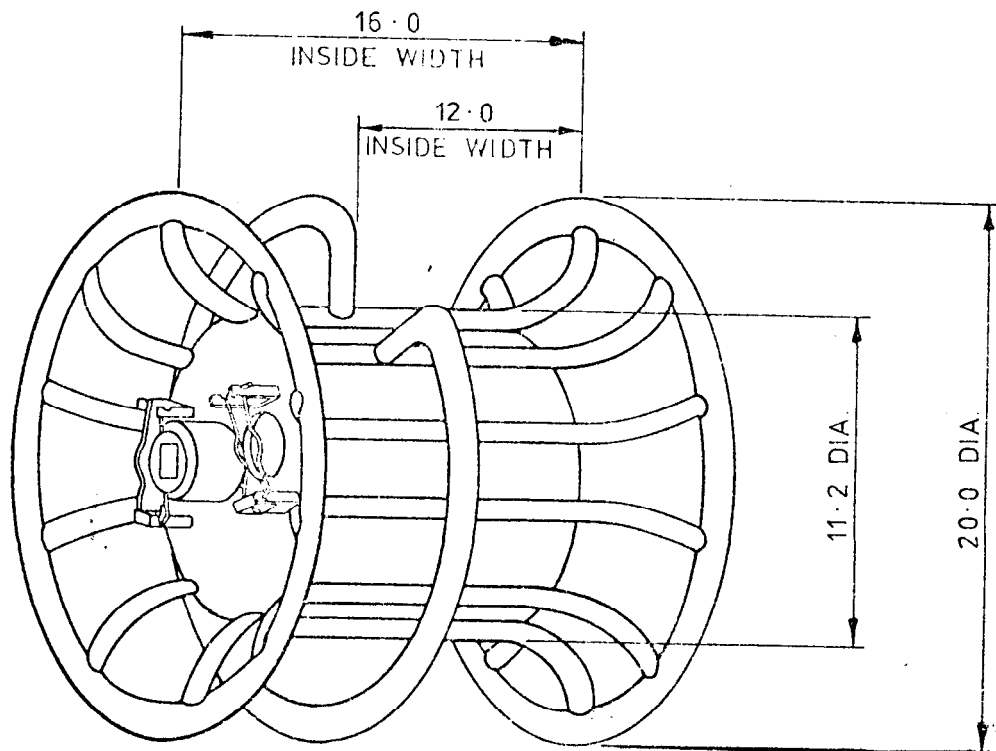
3895-99-105-5960
REELING MACHINE, CABLE HAND
FIG 5



8130-99-413-2710
DRUM, CABLE NO 29
FIG 6

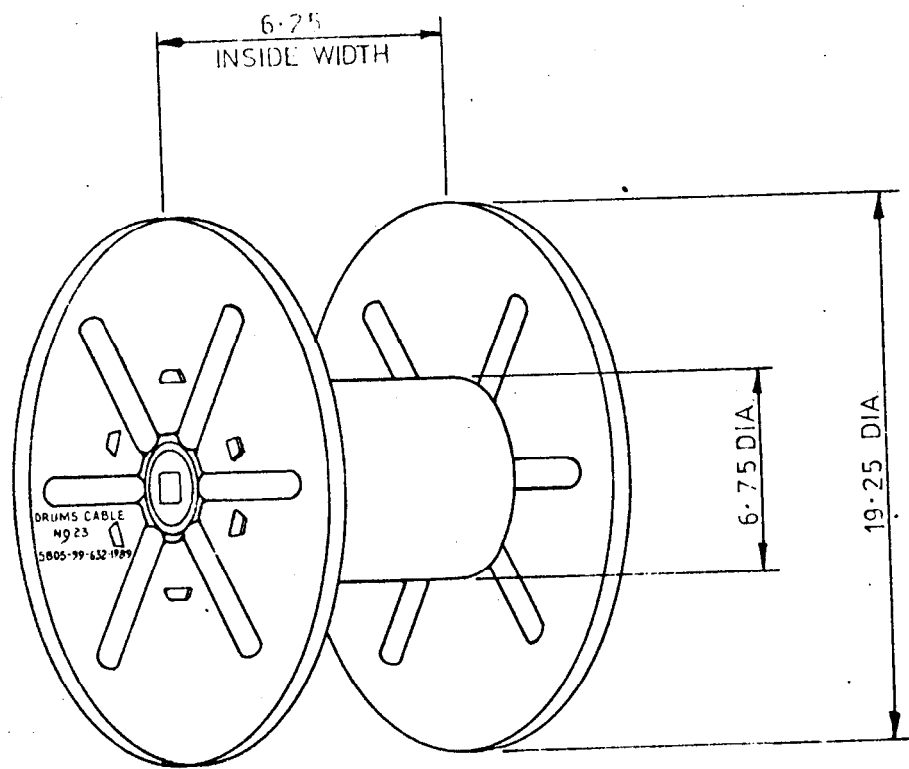


8130-99-901-2281
DRUM, CABLE NO 22
FIG 7

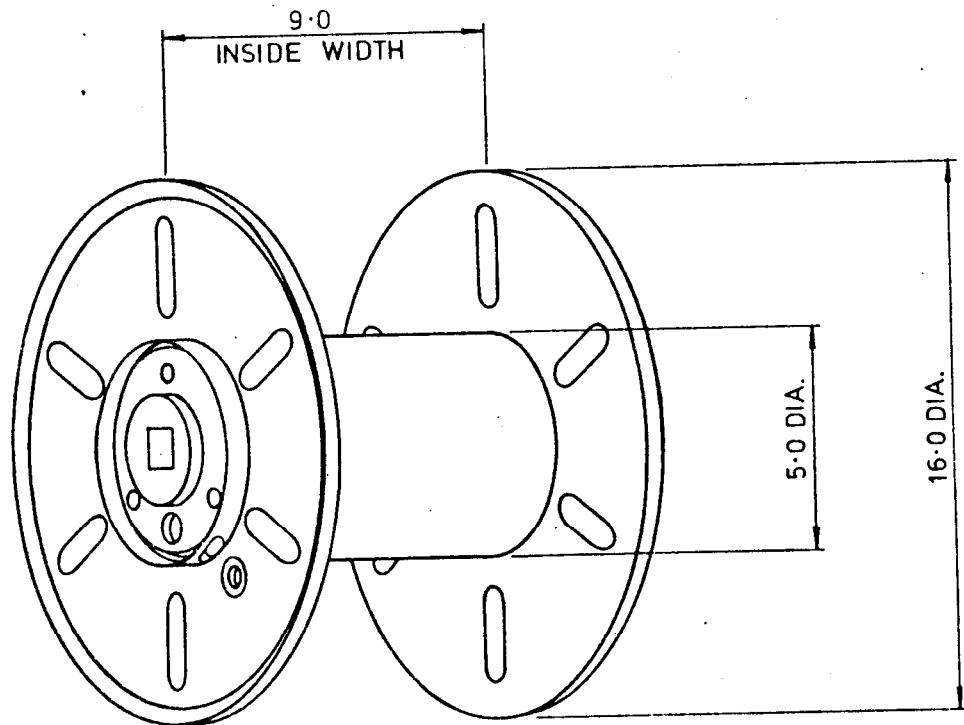


8130-99-652-1721
DRUM, CABLE
FIG 8

DIMENSIONS IN INCHES

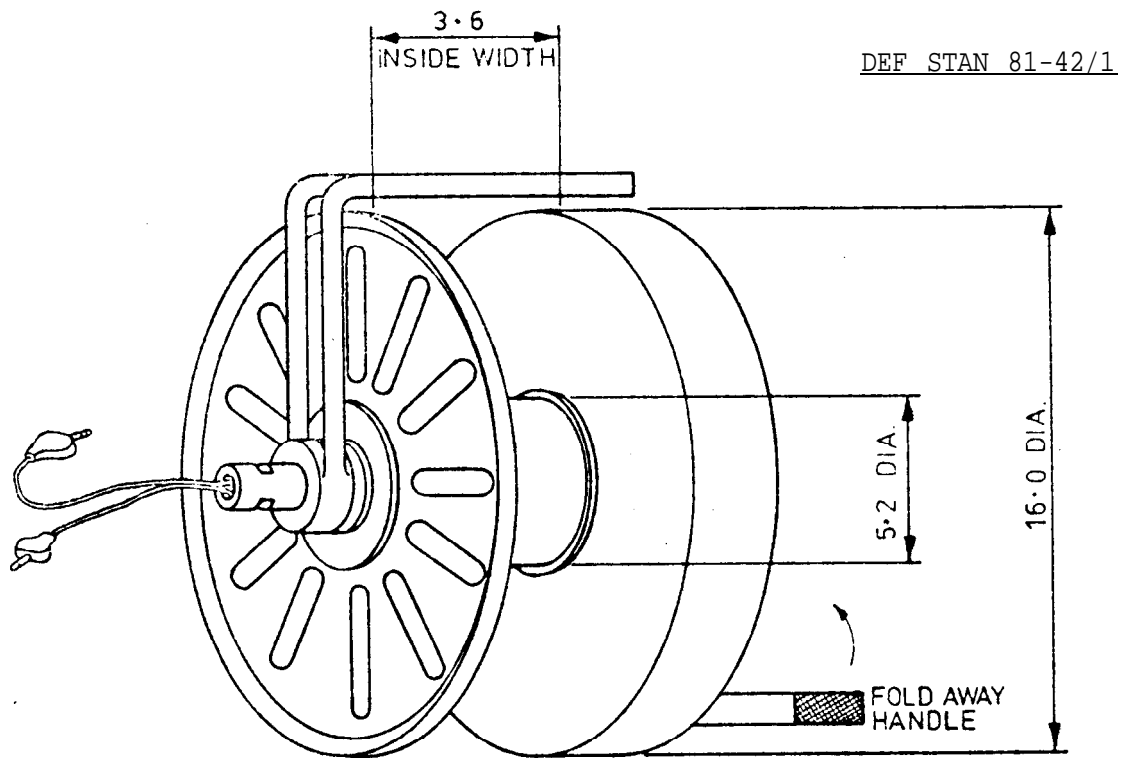


8130-99-632-1989
DRUM, CABLE NO 23
FIG 9

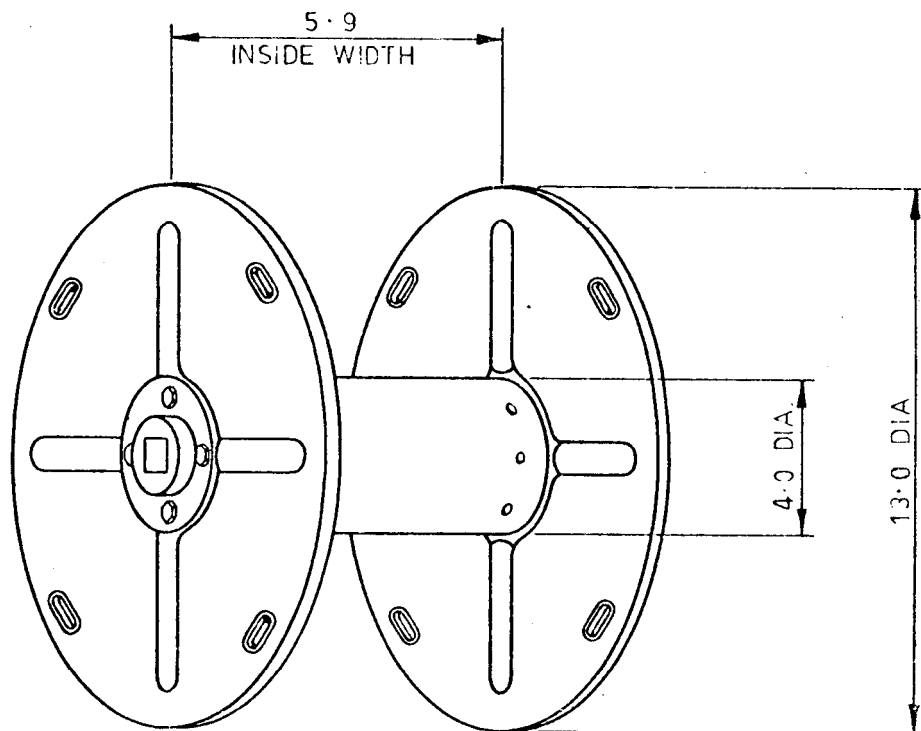


8130-99-100-6560
REEL, CABLE
FIG 10

DIMENSIONS IN INCHES

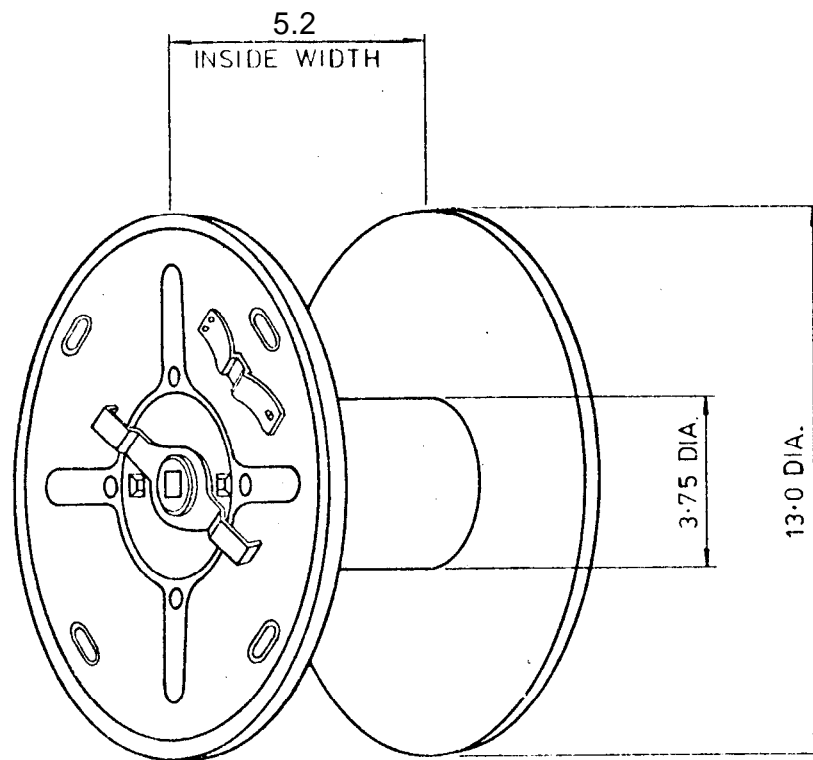


8130-99-222-8688
CABLE REEL ASSY. CONTINUOUS CONNECTION
FIG 11

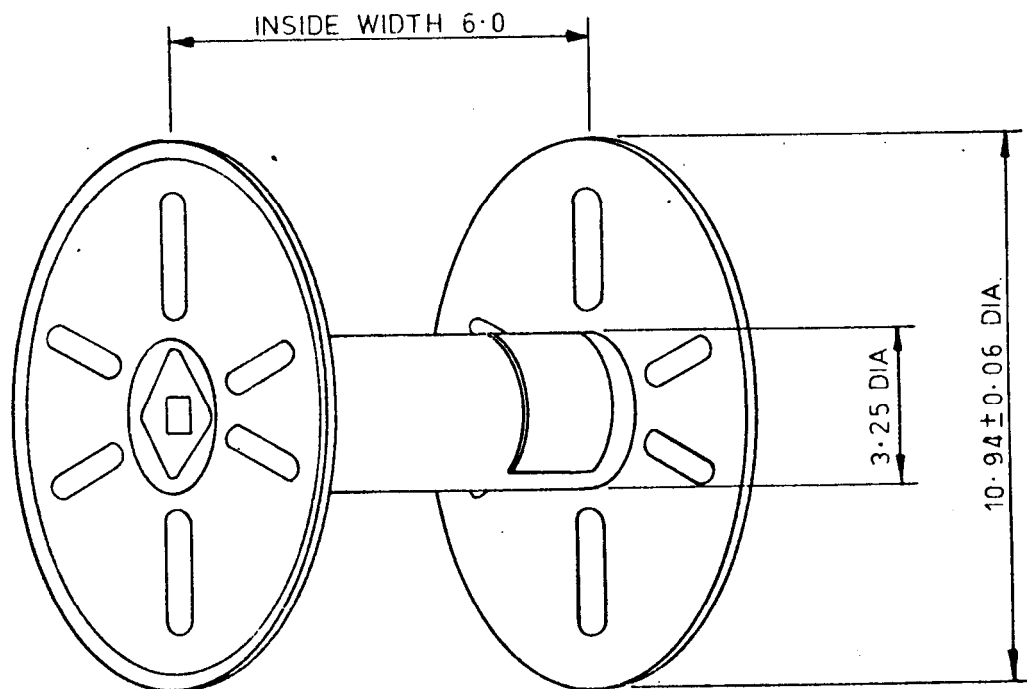


DIMENSIONS IN INCHES

8130-99-977-0277
REEL, CABLE
FIG 12

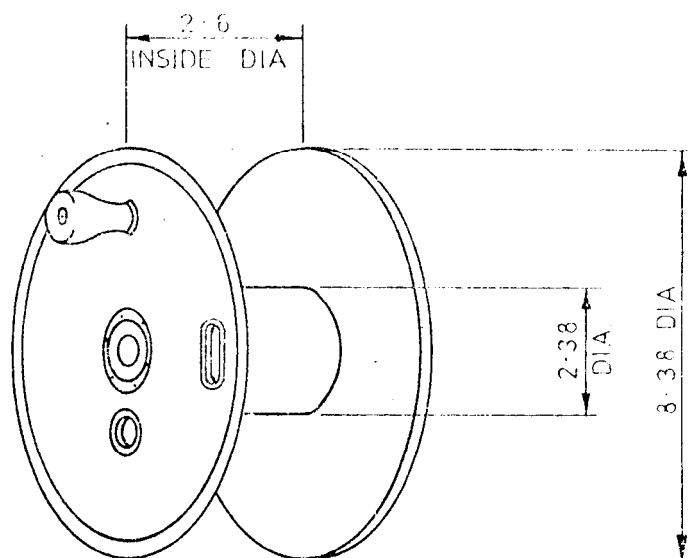


8130-99-413-2659
REEL, CABLE
FIG 13



8130-99-943-3509
REEL, CABLE
FIG 14

DIMENSIONS IN INCHES



DIMENSIONS IN INCHES

8130-99-413-2364
REEL, CABLE NO 2 MARK 2
FIG 15

ANNEX

A METHOD OF ESTIMATING THE LENGTH OF CABLE
THAT MAY BE WOUND ON ANY REEL OR DRUM

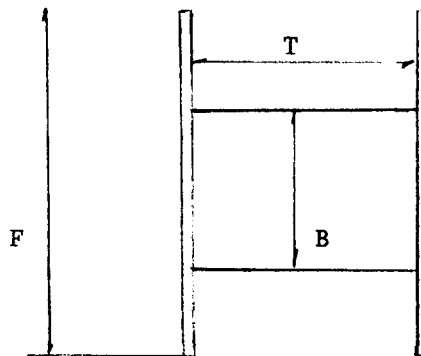
A.1 FORMULA

- A.1.1 The following formula may be used to estimate the length of any cable, wire etc that may be wound onto any reel or drum when the dimensions of the reel or drum and the diameter of the cable or wire etc are known.

$$\text{length of cable} = \pi \left\{ \left(\frac{F - B}{2} \right) + B \right\} \times \frac{\left(\frac{F - B}{2} \right)}{D} \times \frac{T}{D}$$

Where D = the overall diameter of the cable or wire

and F, B and T are shown in the sketch below:



Note: The values obtained for the second and third term of the above equation are normally rounded down, where applicable, to the nearest integer.



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Your reference Def Stan 81-42/1

Our reference D/DStan/81/6/2

Date 4 June 1996

OBSOLESCE NOTICE

Def Stan 81-42/Issue 1

**Title : Reeling Machines Cables; Hand Apparatus Cable Laying; Reels Cable and Drums Cable
For Field Use**

This notice has been agreed by the authorities concerned with the use of the above Standard.

This Standard is obsolescent because it is no longer required for the procurement of new equipment but is retained for maintenance purposes in support of existing in-service equipment.

JOHN CUSH
for Directorate of Standardization