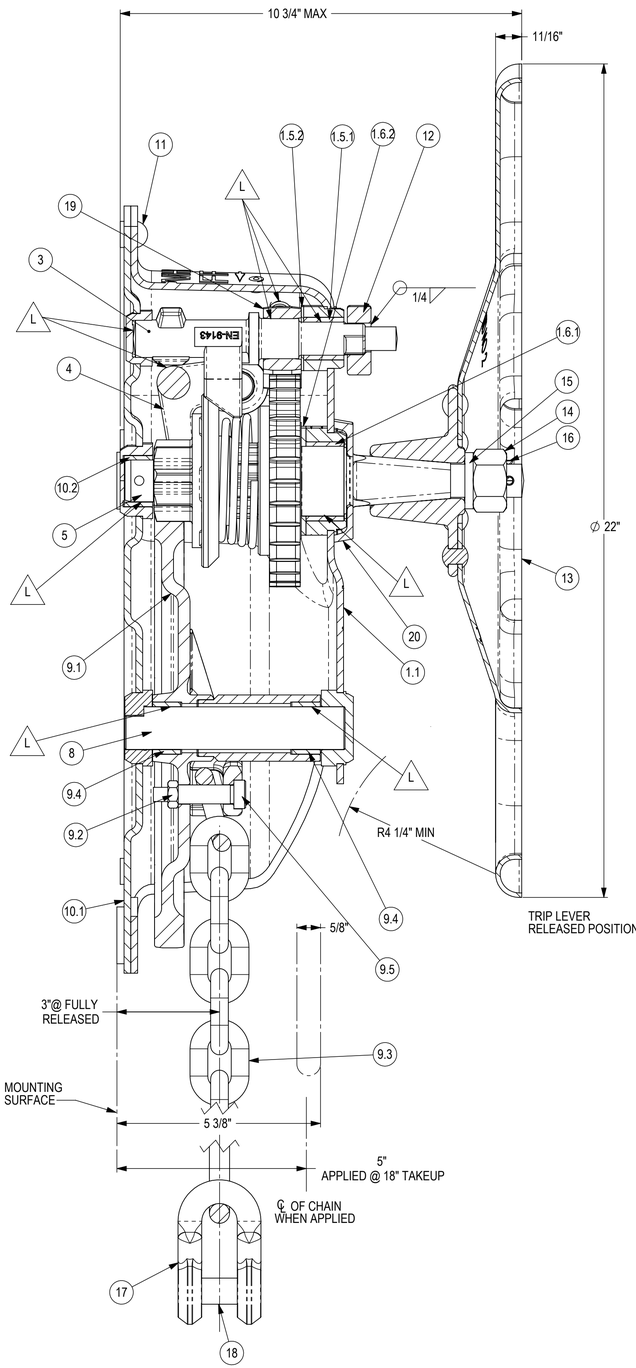
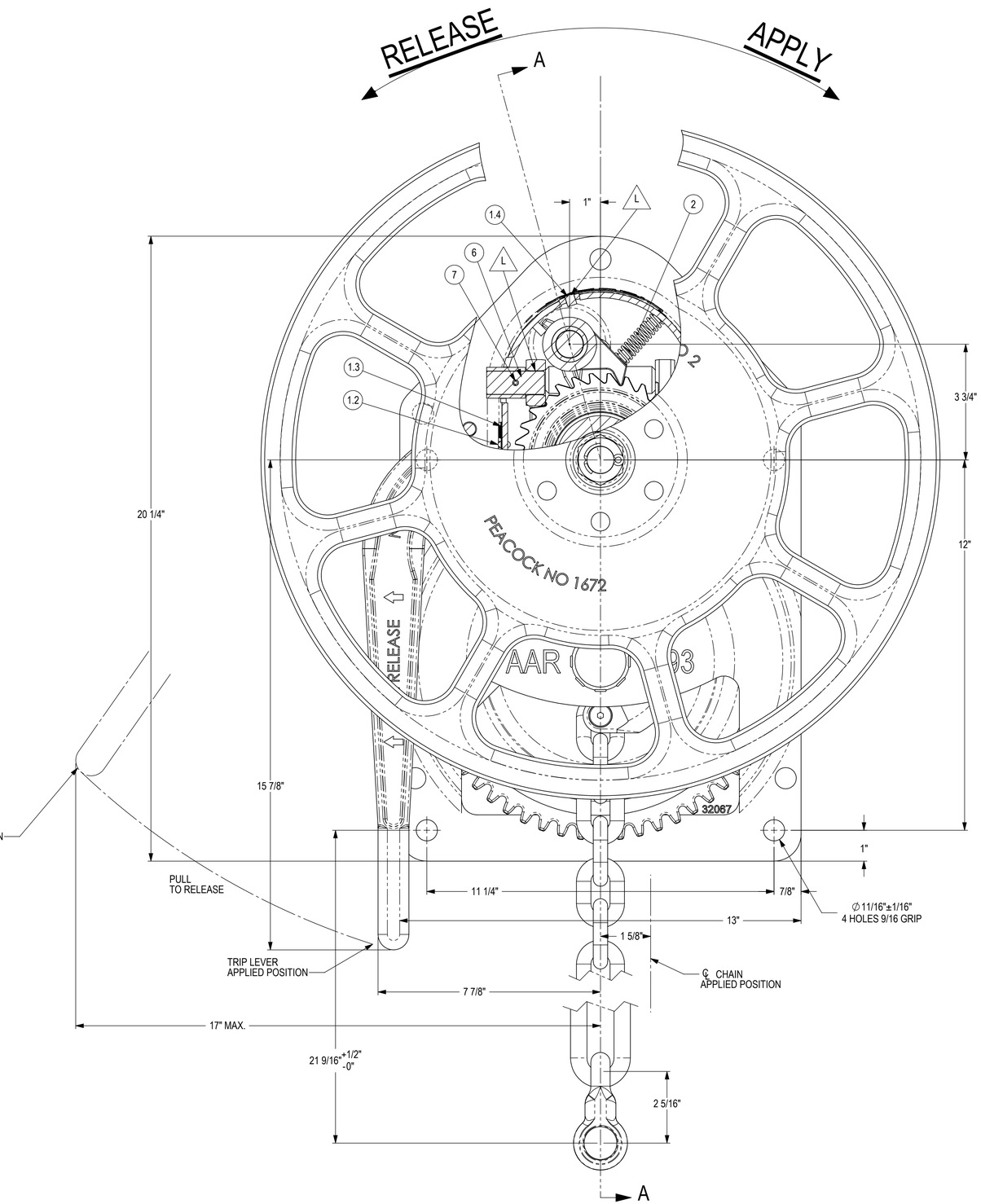
REVISIONS				
REV	DATE	DESCRIPTION	ECN	BY
G	04-07-2008	REDRAWN, ADDED 34562	8260	MMM



SECTION A-A



BRAKE SHOWN IN FULL RELEASE POSITION

CONVENTIONAL HAND BRAKE

GENERAL DATA

AAR FIELD MANUAL GROUP "N"

NON-SPIN VERTICAL WHEEL
GRADUAL & QUICK RELEASE

AAR APPROVED VERTICAL CHAIN TRAVEL THRU 18"

BRAKES FURNISHED COATED WITH BLACK PRIMER

APPROXIMATE WEIGHT 92 LBS

NOTES:

1. WE RECOMMEND HAND BRAKE BE APPLIED TO CAR AFTER BLASTING. WHEN SUBJECTED TO BLASTING, HAND BRAKE MUST BE PROTECTED FROM SHOT OR GRIT MATERIAL. REF. AAR FREIGHT CAR DESIGN SPECIFICATION PARA. 5.2.2
2. BELL CRANK OR SHEAVE FURNISHED AS SPECIFIED. SEE DRAWING D-32243 FOR PROPER INSTALLATION.
3. SEE DRAWING DX-31000-2 FOR IDENTIFICATION OF PARTS
4. ALL DIMENSIONS ± 1/16 UNLESS OTHERWISE SPECIFIED.
5. LUBRICATION RESERVOIRS AND LUBRICATING POINTS INDICATED BY △L .
6. WHEN APPLYING HAND WHEEL, TORQUE NUT TO 160 FT-LBS AND INSERT COTTER THRU SHAFT.

ITEM NO.	Part No	DESCRIPTION	QTY.
20	34562	RUBBER DEFLECTOR	1
19	4092	HOLDING PAWL	1
18	240	RIVET	1
17	458	CLEVIS	1
16	4034-9	COTTER PIN	1
15	242	LOCK WASHER	1
14	241	NUT	1
13	1672	HAND WHEEL	1
12	3107	TRIP LEVER	1
11	454	RIVET	5
10.2	32071	BEARING	1
10.1	32067	BACK PLATE ASSEMBLY	1
10	32095	BACK PLATE ASSEMBLY	1
9.5	5340-4	SHOULDER BOLT	1
9.4	32071	BEARING	2
9.3	32096	CHAIN ASSEMBLY	1
9.2	3443-53	HEX NUT	1
9.1	32173	GEAR & CHAIN DRUM ASSEMBLY	1
9	32159	CHAIN DRUM ASSEMBLY	1
8	32069	GEAR SHAFT	1
7	1664	ROLL PIN	2
6	9236	YOKE SHAFT	2
5	32082	PINION ASSEMBLY	1
4	4622	YOKE ASSEMBLY	1
3	9143	CAM SHAFT	1
2	32075	PAWL SPRING	1
1.6.2	32074-3	BEARING WASHER	1
1.6.1	32074-4	BEARING	1
1.6	32074	PINION BEARING	1
1.5.2	32231-3	FRONT PAWL SHAFT THRUST BEARING	1
1.5.1	32231-4	FRONT PAWL SHAFT BEARING	1
1.5	32231	FRONT PAWL SHAFT BEARING	1
1.4	5892	OIL CUP	1
1.3	31818	WARNING LABEL	1
1.2	3338-1	RIVET	2
1.1	32068	PRESSED STEEL HOUSING	1
1	32083	HOUSING	1

BIILL OF MATERIAL

NEXT ASSEMBLY | USED ON

EN CODES
CUSTOMER Y | VENDOR N
WEB Y | APPROVAL CODE A,1

INTERPRET DRAWING IN ACCORDANCE WITH ASME Y14.5
THIRD ANGLE PROJECTION
ALL DIMENSIONS ARE IN INCHES UNLESS NOTED

TOLERANCES/FINISHES UNLESS OTHERWISE NOTED
DECIMALS .XX ±
DECIMALS .XXX ±
FRACTIONS ±
ANGLES ±
MACHINED SURFACES 125
DRILLED HOLE DIAMETERS +.010/-.01
BREAK ALL SHARP CORNERS AND EDGES
℄'SK ALL TAPPED HOLES 1/8" X ONE THREAD DEEP

MATERIAL | EST. WT.: 92 LBS

ELLCON NATIONAL
50 BEECHTREE BLVD. GREENVILLE, S.C. 29605

CONVENTIONAL HAND BRAKE DESIGNATION 31000-2

DRAWN	CHECKED	DATE	SCALE
MMM	RLC	4-30-92	1:2

SIZE	DWG NO	SHEET	REV
D	31000-2	1 OF 1	G

THIS DOCUMENT AND ITS CONTENT CONTAIN CONFIDENTIAL AND PROPRIETARY INFORMATION OWNED BY ELLCON-NATIONAL, INC. AND IT AND ALL COPIES THEREOF ARE TO BE RETURNED TO ELLCON-NATIONAL WHEN SO REQUESTED. THIS DOCUMENT OR ANY PART THEREOF SHALL NOT BE REPRODUCED OR DISCLOSED TO OTHERS OR USED FOR MANUFACTURE OR SALE OF APPARATUS OR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN PERMISSION OF ELLCON-NATIONAL, INC. AND IT SHALL NOT BE LOANED, COPIED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS EXCEPT UNDER WRITTEN AUTHORIZATION FROM ELLCON-NATIONAL, INC.