

REV.	DATE	DESCRIPTION	APPROVED
H	3/6/2008	REDRAWN IN SOLIDWORKS, ADDED ITEM 30 PER ECN 8260	RAL

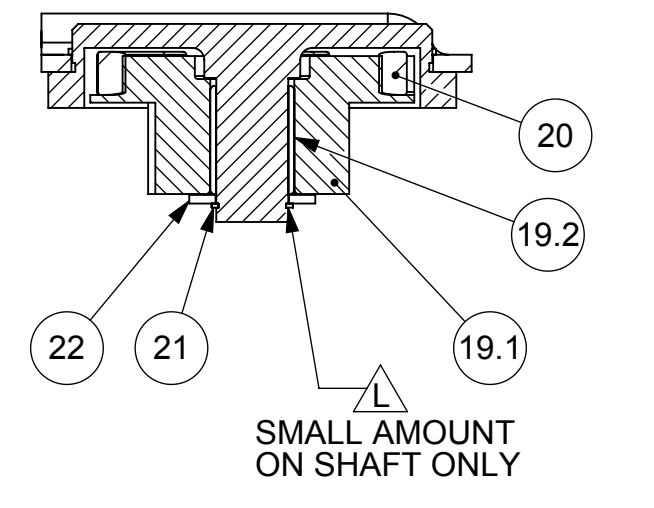
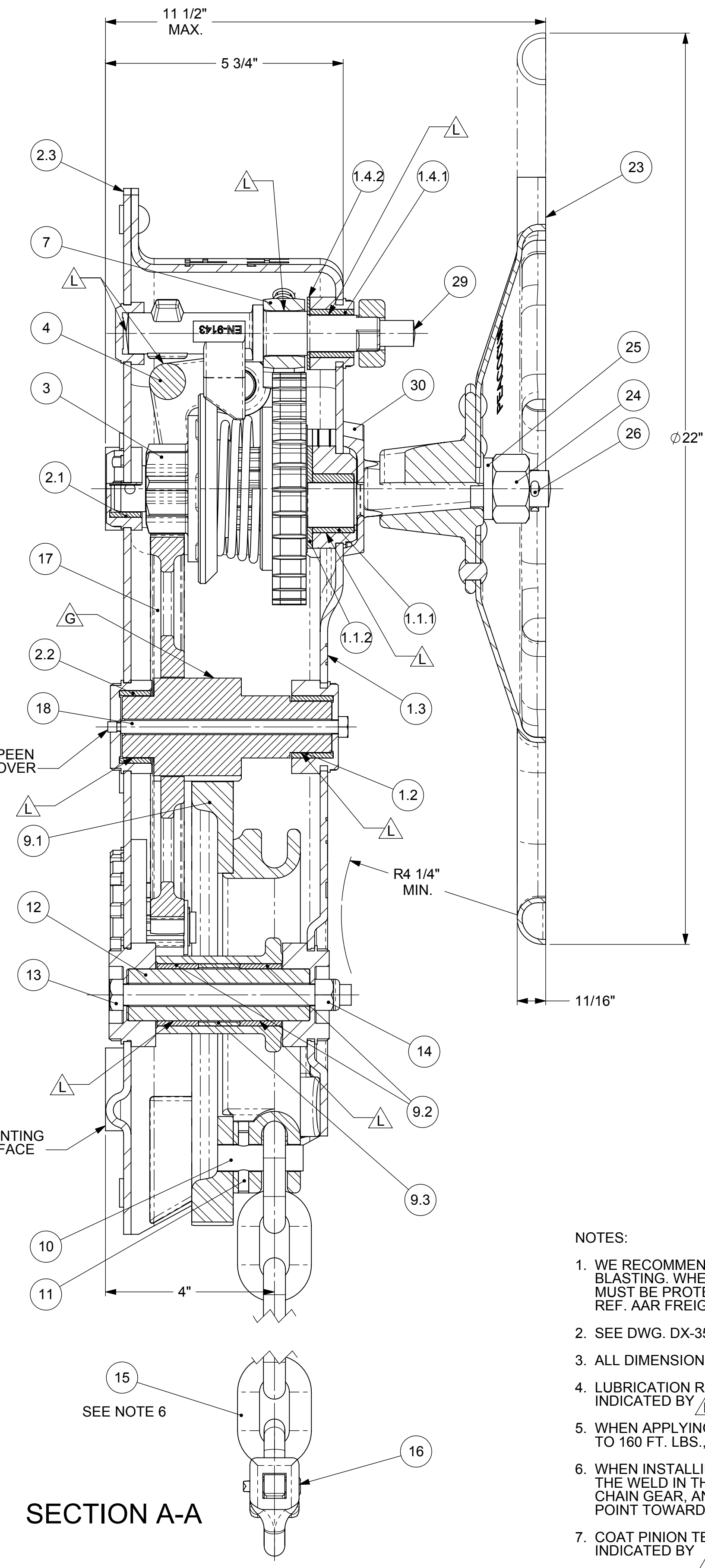
GENERAL DATA

BRAKES FURNISHED COATED WITH BLACK PRIMER

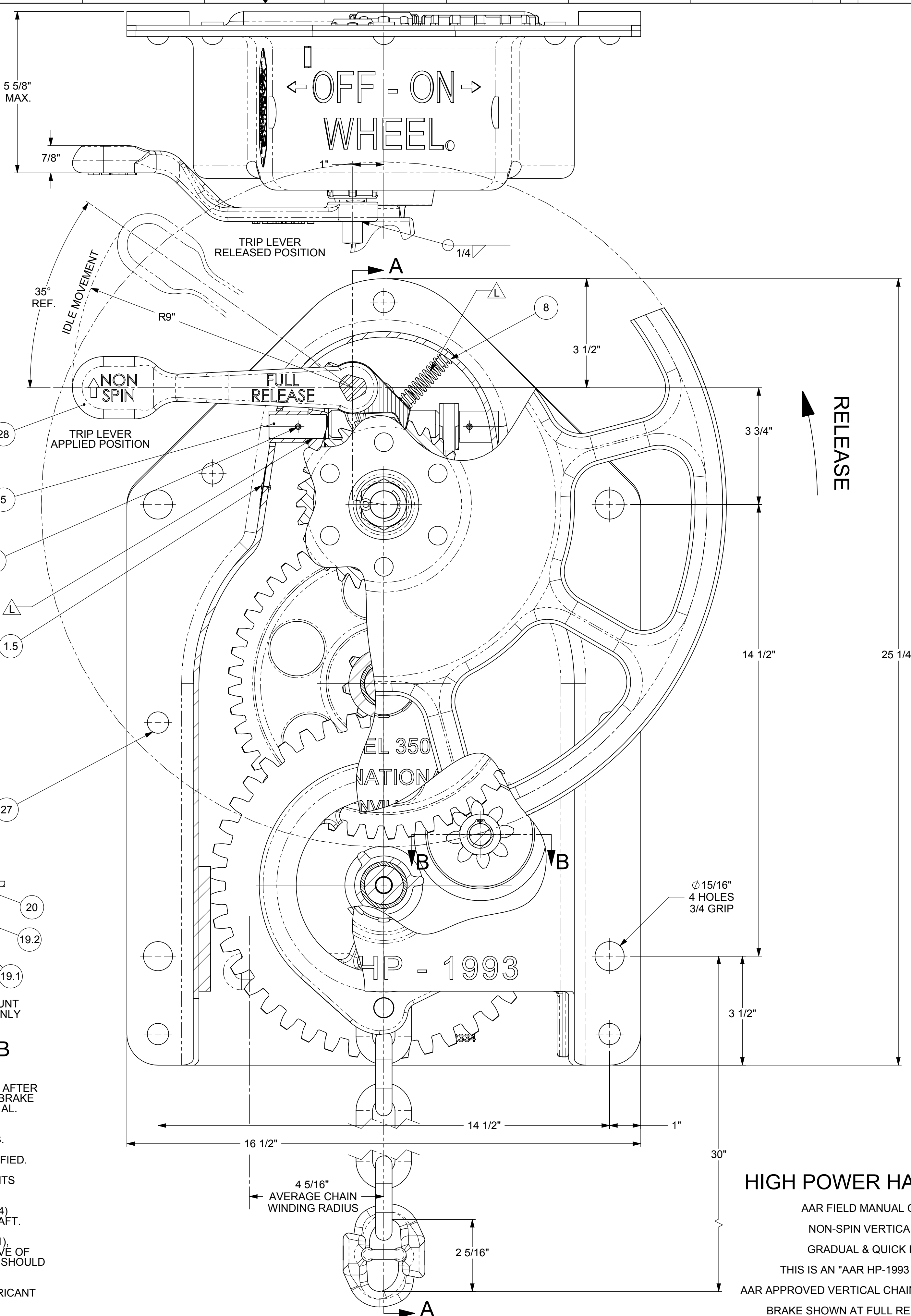
VERTICAL CHAIN TRAVEL WITH STANDARD CHAIN AS SHOWN 4" TO 26"

APPROXIMATE WEIGHT ----- 130 LBS.
MINIMUM FORCE PRODUCED ----- 6800 LBS.

QTY.	PART NUMBER	DESCRIPTION	ITEM NO.
1	32331	HOUSING ASSEMBLY (COMPLETE)	1
1	32074	PINION BEARING	1.1
1	32074-4	BEARING	1.1.1
1	32074-3	BEARING WASHER	1.1.2
1	32285	BEARING	1.2
1	32333	HOUSING	1.3
1	32231	FRONT PAWL SHAFT BEARING	1.4
1	32231-4	FRONT PAWL SHAFT BEARING	1.4.1
1	32231-3	FRONT PAWL SHAFT THRUST BEARING	1.4.2
2	3338-1	1/8 BLIND RIVET	1.5
1	31818	WARNING LABEL	1.6
1	32332	BACK PLATE ASSEMBLY (COMPETE)	2
1	32071	BEARING	2.1
1	32319	BEARING	2.2
1	32334	BACK PLATE	2.3
1	32082	PINION ASSEMBLY (COMPLETE)	3
1	4622	YOKE ASSEMBLY	4
2	9236	YOKE SHAFT	5
2	1664	ROLL PIN	6
1	4092	HOLDING PAWL	7
1	32075	PAWL SPRING	8
1	32327	CHAIN GEAR ASSEMBLY (COMPETE)	9
1	32329	CHAIN GEAR ASSEMBLY	9.1
2	32285	BEARING	9.2
1	32294	SPACER	9.3
1	9103	PIN	10
1	3297-6	ROLL PIN	11
1	9104	SHAFT	12
1	3442-123	1/2-13 X 5" LG. HX. HD. BOLT	13
1	4493-2	.50-13 NYLOCK NUT	14
1	9098	CHAIN ASSEMBLY	15
1	1091-A	JOINER	16
1	9105	DOUBLE GEAR ASSEMBLY	17
1	9109	RETAINING BOLT	18
1	9244	CENTR. GOV. ASSY (COMPLETE)	19
1	9094	CENTRIFUGAL GOVERNOR ASSY	19.1
1	9096	BEARING	19.2
4	9097	FRICITION SHOE	20
1	4521-20	RETAINING RING	21
1	9233	3/4 FLAT WASHER	22
1	1672	HAND WHEEL	23
1	241	NUT	24
1	242	LOCK WASHER	25
1	4034-9	COTTER PIN	26
7	454	RIVET	27
1	32275	TRIP LEVER	28
1	9143-1	CAM SHAFT	29
1	34562	RUBBER DEFLECTOR	30



- 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 SPEC. PARA. 5.2.2
 2. SEE DWG. DX-35000 FOR IDENTIFICATION OF PARTS.
 3. ALL DIMENSIONS ±1/16" UNLESS OTHERWISE SPECIFIED.
 4. LUBRICATION RESERVOIRS AND LUBRICATION POINTS INDICATED BY
 5. WHEN APPLYING HANDWHEEL (23), TORQUE NUT (24) TO 160 FT. LBS., AND INSERT COTTER (26) THRU SHAFT.
 6. WHEN INSTALLING CHAIN (15) INTO CHAIN GEAR (9.1), THE WELD IN THE FIRST LINK MUST GO INTO GROOVE OF CHAIN GEAR, AND THE WELD OF THE SECOND LINK SHOULD POINT TOWARDS THE FRONT OF THE BRAKE.
 7. COAT PINION TEETH WITH A HI-GRAPHITE DRY LUBRICANT INDICATED BY



HIGH POWER HAND BRAKE

AAR FIELD MANUAL GROUP "P"

NON-SPIN VERTICAL WHEEL

GRADUAL & QUICK RELEASE

THIS IS AN "AAR HP-1993 HAND BRAKE"

AAR APPROVED VERTICAL CHAIN TRAVEL 4" THRU 26"

BRAKE SHOWN AT FULL RELEASE POSITION

ELLCON NATIONAL

50 BEECHTREE BLVD. GREENVILLE, S.C. 29605

HIGH POWER HAND BRAKE DESIGNATION 35000

DRAWN: MMM CHECKED: RLC DATE: 8-10-92 SCALE: 1:2

REV: H DWG NO: 35000