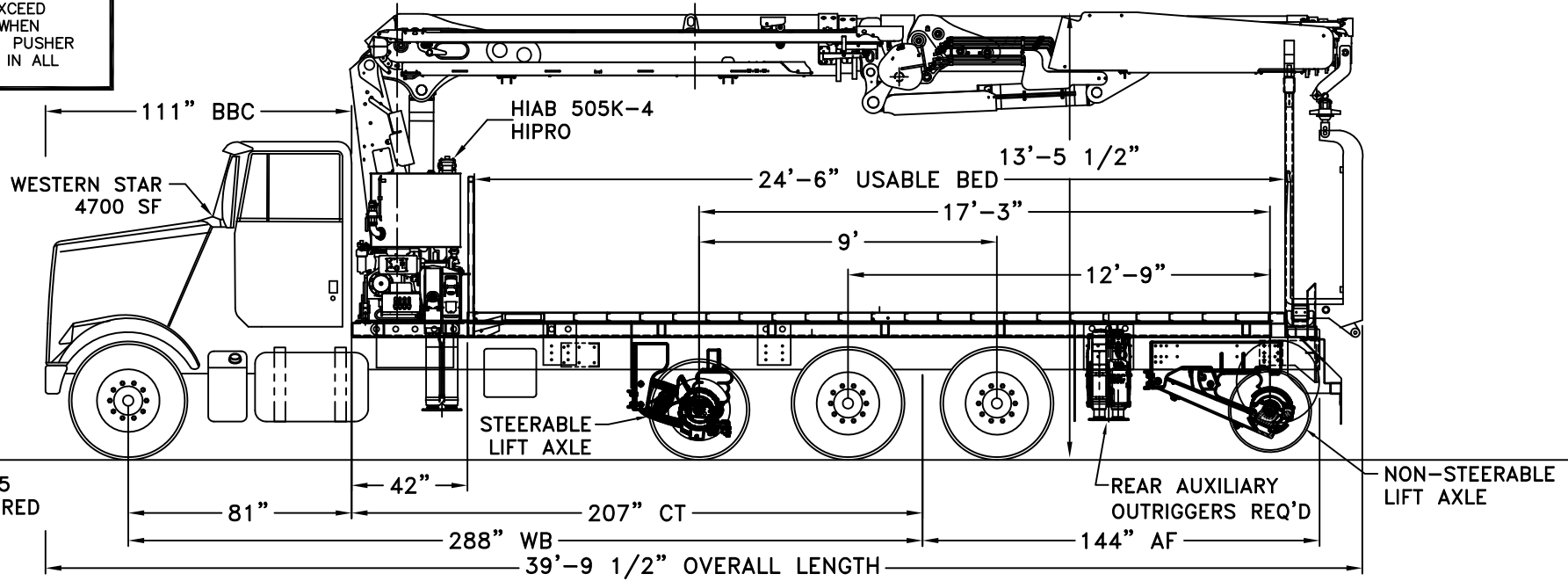


**\* WARNING \***

TANDEM AXLE MAY EXCEED 34,000 LBS. RATING WHEN PUSHER AXLE IS UP. PUSHER AXLE MUST BE DOWN IN ALL FORWARD GEARS.



**TRUCK, HIAB CRANE & ACCESSORIES WEIGHT DISTRIBUTION, NO PAYLOAD, PUSHER AXLE DOWN.**

TOTAL WEIGHT ON FRONT AXLE	= 13,920 LBS.
TOTAL WEIGHT ON PUSHER AXLE	= 9,000 LBS.
TOTAL WEIGHT ON TANDEM AXLE	= 29,290 LBS.
FRONT AXLE WT. PERCENTAGE	= 27 %
PUSHER AXLE WT. PERCENTAGE	= 17 %
TANDEM AXLE WT. PERCENTAGE	= 56 %
GROSS VEHICLE WEIGHT	= 52,210 LBS.

**TRUCK, HIAB CRANE & ACCESSORIES WEIGHT DISTRIBUTION, WITH PAYLOAD, LIFT AXLES DOWN.**

TOTAL WEIGHT ON FRONT AXLE	= 18,780 LBS.
TOTAL WEIGHT ON PUSHER AXLE	= 9,000 LBS.
TOTAL WEIGHT ON TANDEM AXLE	= 33,220 LBS.
TOTAL WEIGHT ON TAG AXLE	= 9,000 LBS.
FRONT AXLE WT. PERCENTAGE	= 27 %
PUSHER AXLE WT. PERCENTAGE	= 13 %
TANDEM AXLE WT. PERCENTAGE	= 47 %
TAG AXLE WT. PERCENTAGE	= 13 %
GROSS VEHICLE WEIGHT	= 70,000 LBS.
WATER LEVEL PAYLOAD	= 17,790 LBS.

**TRUCK SPECIFICATIONS**

TRUCK MODEL	= WESTERN STAR 4700 SF
WHEELBASE	= 288"
CAB TO TANDEM	= 207"
AXLE-TO-FRAME	= 144"
FRONT AXLE CURB WEIGHT	= 10,689 LBS.
REAR AXLE CURB WEIGHT	= 9,557 LBS.
FRONT G.A.W.R.	= 20,000 LBS.
REAR G.A.W.R.	= 46,000 LBS.
YIELD STRENGTH OF EACH CHASSIS FRAME	MINIMUM SECTION MODULUS REQUIRED
120,000 P.S.I. YIELD	= 46.55 in. <sup>3</sup>
MINIMUM RBM/RAIL OF 5,585,679 IN-LBS	

**NOTES:**  
 CHASSIS FRAME RAIL MIN. OF 31.0 SECTION MODULUS REQ'D.  
 FULL LENGTH SUB-FRAME REQUIRED:  
 5"x3"x3/8" RECT. TUBING (ON TOP OF CHASSIS FRAME)  
 5"x3"x3/8" RECT. TUBING (CROSSMEMBERS EVERY 3 FT.)  
 1/2" TOP & 3/8" BOTTOM PLATES REQUIRED.  
 FLATBED AND LIFT AXLE WEIGHTS ARE ESTIMATED.  
 CURB WEIGHTS WERE PROVIDED.

TRUCK RUNS IN US (RULES FOR MOST STATES).  
 20,000 LBS. ALLOWED ON FRONT AXLE.  
 34,000 LBS. ALLOWED ON TANDEM.  
 42,500 LBS. ALLOWED ON TRIDEM (9').  
 45,500 LBS. ALLOWED ON TRIDEM (13').  
 53,500 LBS. ALLOWED ON QUAD (17').  
 70,000 LBS. ALLOWED GROSS WEIGHT (35').  
 MAXIMUM LENGTH CANNOT EXCEED 40'.

**NOTICE:**  
 THE DRAWING PURPOSE IS TO INTRODUCE A GENERAL CONCEPT OF A PROPOSED IDEA.

**NOTICE:**  
 THIS WEIGHT DISTRIBUTION IS BASED ON ESTIMATED WEIGHTS AND IS ONLY AS ACCURATE AS THOSE ESTIMATES. ACTUAL WEIGHTS MAY CHANGE THE RESULTS OF THIS WEIGHT DISTRIBUTION.

**Cargotec USA**

Cargotec USA  
 12233 Williams Road  
 Perrysburg, Ohio 43551  
 Tel (419) 482-6000  
 Fax (419) 482-6001  
 Tolerances - unless otherwise noted.  
 Tolerances are in inches  
 2-PLACE ±.000..... .03  
 3-PLACE ±.000..... .015  
 ANGULAR ± ..... 1'  
 FRACTIONAL ± ..... 1/16"  
 Break all sharp corners unless otherwise specified.

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Next Assy:  
**505K / SALES**  
 Dwg/Cad file no.

**Drawing Title:** 505K HI-PRO  
**Project Name:** SALES LAYOUT

Drawn by:	Date:	Size:	Part No.
SMG	8-19-19		
Approval:	Date Approved:	Scale:	unit wt.
			Eng. job no.: