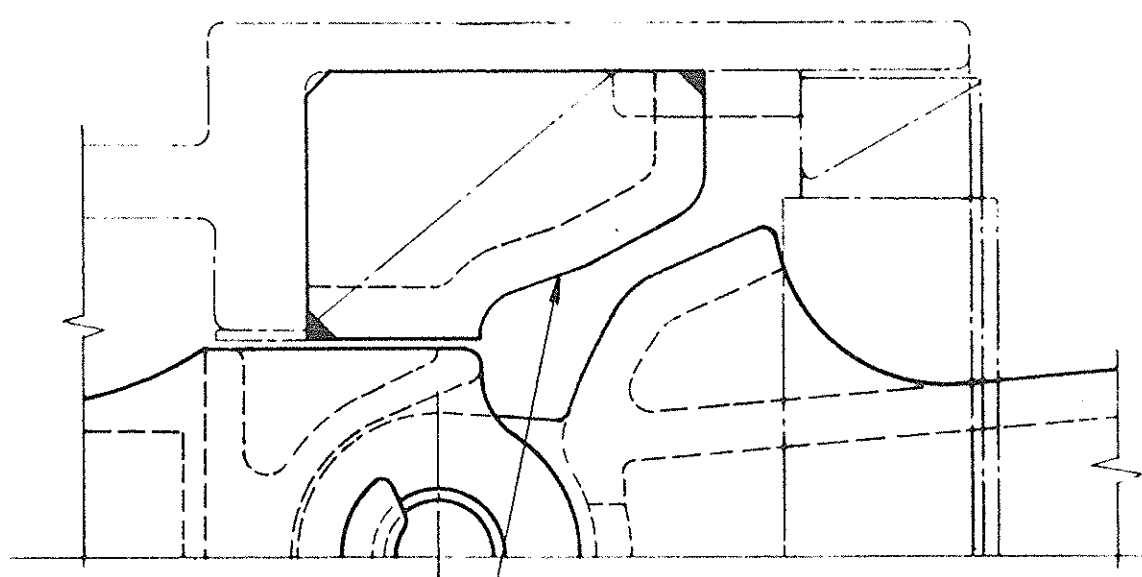
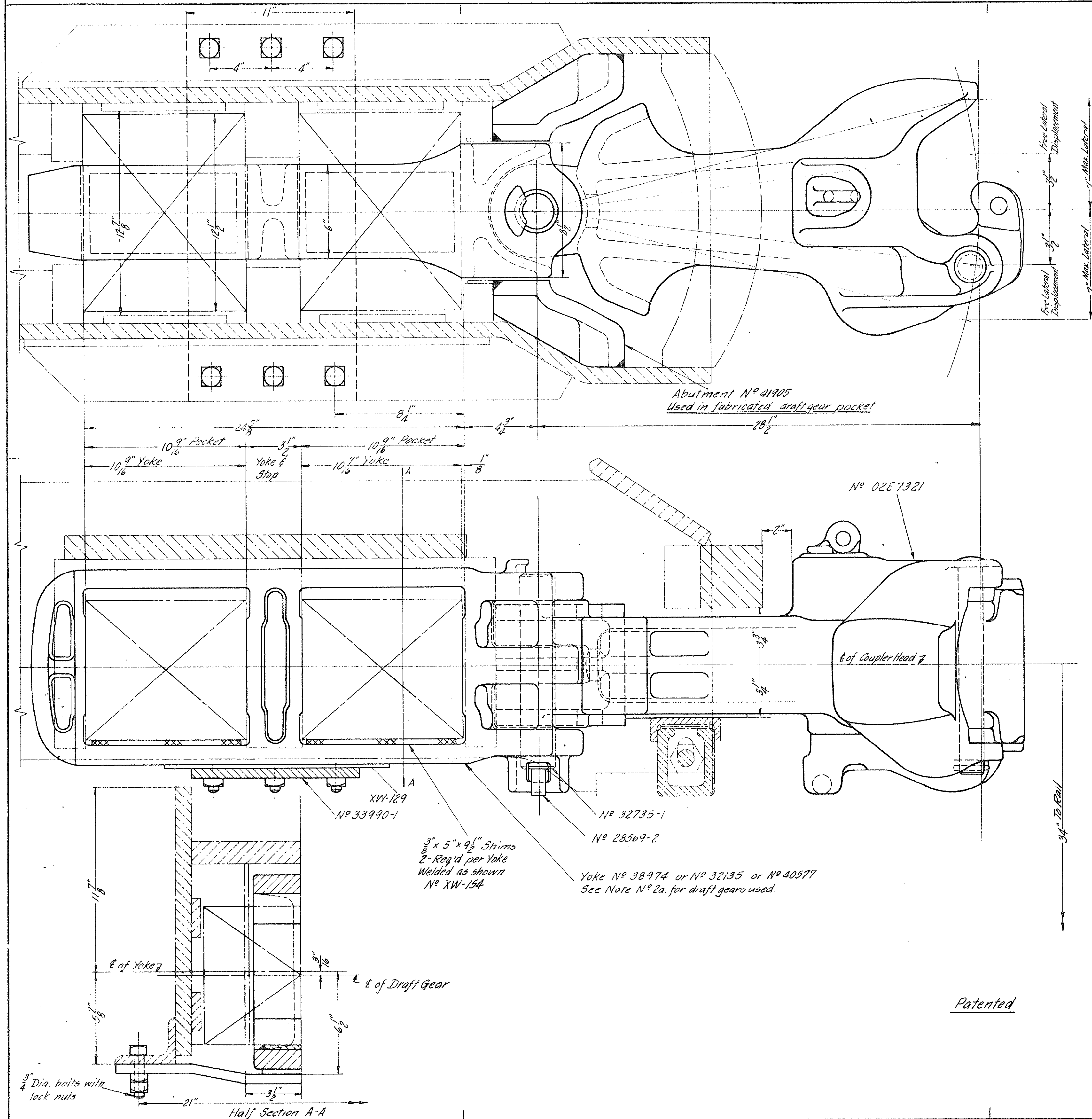




Abutment No. 41906
Used in cast draft gear pocket

Note 1. a. Alignment control data for 3 1/2" free coupler displacement feature.

Type of Equipment	Curve & Tangent		Continuous Curve	
	Minimum Radius - feet	Will Couple	Minimum Radius - feet	Will Couple
2 Locomotives (GP-7 or GP-9)	480	250	130	250
Locomotive (GP-7 or GP-9) and Standard Car	480	200	250	170

b. The above tabulation is based on the following data.

Type of Equipment		
Locomotive	Standard Car	
31'-0"	30'-10"	Distance between truck centers
12'-7"	6'-9"	Distance between truck centers coupling line
56'-2"	44'-4"	Coupling line to coupling line
3 1/2"	0"	Coupler free lateral displacement
7"	3 1/4"	Coupler maximum lateral displacement
3 1/4" *	1"	Truck lateral used - to negotiate
0"	0"	Truck lateral used - to couple

* The 3 1/4" total locomotive truck lateral used is composed of
a. 2 1/4" lateral movement between body frame and bolster
b. 1/2" lateral movement between journal box thrust block and axle end
c. 5/16" lateral movement between wheel flanges and rail head.

c. The data in note 1a, above will not apply when locomotive and car dimensions deviate from those shown in note 1b.
d. 1. Two locomotives would negotiate a sharper curve and tangent or continuous curve than the 250' shown. However Locomotive Builder has specified the 250' due to foot board clearances.
2. The 200' and 170' conditions shown for locomotives and car can be met provided foot boards on locomotive do not interfere with any appurtenance that may be on the end of the car.

Note 2. Parts reference on drawings.
a. Yokes No. 38974 and No. 40577 are as shown except for No. 40577 having wear plates welded to yoke head, and are used with either the MS-485-5A or MS-285-6A draft gears.
b. Yoke No. 32135 is the same as shown except for steel shims which are not required. This yoke is used with M-375 draft gear.

Note 3. Drawing References
a. Abutment casting detail drawings.
1. For fabricated underframe see drawing No. 41905
2. For cast underframe see drawing No. 41906
b. Application and gaging of abutment casting.
1. For fabricated underframe see drawing No. 41908
2. For cast underframe see drawing No. 41909
c. For gage details see drawing No. 41907

NATIONAL MALLEABLE AND STEEL CASTINGS CO.
CLEVELAND, OHIO
TYPE E COUPLER
ALIGNMENT CONTROL DRAWBAR APPLICATION
SOLID ABUTMENT TYPE
3 1/2" FREE DISPLACEMENT FEATURE
41904
FEB. 4, 1960

Patented