TABLE 6.7
TOLERANCES ON DIMENSIONS AND WEIGHTS
See Appendix A for Metric Tables

OUTSIDE DIAMETER, *D*:

4 in. and smaller.....±0.031 in.
4½ in. and larger.....±0.75 per cent

For upset casing the following tolerances apply to the outside diameter of the pipe body immediately behind the upset for a distance of approximately 5 in. for sizes 5½ in. OD and smaller, and a distance approximately equal to the OD for sizes larger than 5½ in. Measurements shall be made with calipers or snap gages.

Pipe Size, OD, in.	Tolerances Behind L_c
5.000	+7/64 in. —0.75% D
5.500 - 8.625	+⅛ in. —0.75% D
9.625 and larger	+5/32 in. —0.75% D

For 2⅜ in. and larger external-upset tubing the following tolerances shall apply to the outside diameter at distance L_a from the end of the pipe. The measurements shall be made with snap-gages or calipers. Changes in diameter between L_a and L_b shall be smooth and gradual. Pipe body tolerances do not apply for a distance of L_b from the end of the pipe.

Pipe Size, OD, in.	*Tolerance, in.*
2⅜-3½	+3/32 −1/32
4	+7/64 −1/32
4½	+7/64 −0.75% D

INSIDE DIAMETER, *d*, is governed by the outside diameter and weight tolerances.

UPSET DIMENSIONS:
Tolerances on upset dimensions are given in Tables 6.3, 6.5 and 6.6.

WALL THICKNESS, *t*.....—12.5 per cent

WEIGHT:
Single lengths.....+6.5 per cent
—3.5 per cent
Carload lots.....—1.75 per cent
A carload is considered to be a minimum of 40,000 lb. (18144 kg).

DRIFT TEST:

Each length of casing and tubing shall be tested throughout its entire length with a cylindrical drift mandrel conforming to the requirements listed below. The leading edge of the drift mandrel shall be rounded to permit easy entry into the pipe. The drift mandrel shall pass freely through the pipe with a reasonable exerted force equivalent to the weight of the mandrel being used for the test. Pipe shall not be rejected until it has been drift tested when it is free of all foreign matter and properly supported to prevent sagging.

Product and Size, in.	Drift Mandrel Size, in. Length	Diam. min.
Casing[1]:		
8⅝ and smaller	6	d — ⅛
9⅝ to 13⅜, incl.	12	d — 5/32
Tubing[2]:		
2⅞ and smaller	42	d — 3/32
3½ and larger	42	d — ⅛

[1]The minimum diameter of the drift mandrel for extreme-line casing shall be as shown in Col. 16, Table 6.3.

[2]Integral-joint tubing shall be tested before upsetting with a drift mandrel as shown, and shall also be drift tested at the pin end, after upsetting, with a cylindrical drift mandrel 42 in. in length and d_{1u} — 0.015 in. in diameter (see Table 6.6, Col. 8).

TABLE 6.8
RANGE LENGTHS
All lengths in feet
See Appendix A for Metric Tables

Range	1	2	3
CASING			
Total range length, incl.	16-25	25-34	34 or more
*Range length for 95 per cent or more of carload:			
Permissible variation, max.	6	5	6
Permissible length, min.	18	28	36
TUBING			
Total range length, incl.	20-24	28-32	.....
*Range length for 100 per cent of carload:			
Permissible variation, max.	2	2	.....
Permissible length, min.	20	28	.....
PUP JOINTS			
Lengths — 2, 4, 6, 8, 10, and 12 ft.			
Tolerance — ±3 in.			

*Carload tolerances shall not apply to orders of less than a carload shipped from the mill. For any carload of pipe, shipped from the mill to the final destination without transfer or removal from the car, the tolerance shall apply to each car. For any order consisting of more than a carload, and shipped from the mill by rail, but not to the final destination in the rail cars loaded at the mill, the carload tolerances shall apply to the total order, but not to the individual carloads.