

Canadian Railway and Marine World

July, 1914.

The June Railway Mechanical Conventions at Atlantic City.

The two great railway conventions of the year, the Master Car Builders' Association, and the American Railway Master Mechanics' Association, were held in Atlantic City, N. J., the former on June 10 to 12, and the latter on June 15 to 17. The most important features of these annual conventions are the reports of the standing and special committees and the individual papers presented, the principal ones of which are given on this and following pages, in full or in abstract.

Report of Committee on the Retirement of 40,000 and 50,000 lbs. Capacity Cars From Interchange Service.

The Master Car Builders' committee, D. F. Crawford, General Superintendent of Motive Power, Pennsylvania Rd., Lines West, chairman, reported as follows:—

At the convention in June, 1913, the question of the retirement of cars of 40,000 and 50,000 lbs. capacity from interchange service was considered and a committee was appointed to consider the question in all of its phases. In the discussion, both in the convention and by the committee, it seemed desirable to give consideration to some of the principal features of the construction of the cars, as well as the marked capacity.

The committee addressed to the members four queries, as given below. Members were also to advise as to the number of cars of the various capacities and several constructions operating on their lines. The following is a summary of the answers received:—

Question 1. Have you any restrictions in force regarding the use of cars of 40,000 and 50,000 lbs. capacity? 84 answered no; 13, yes; 2, yes for 40,000 and no for 50,000; 1, yes for 40,000 only; and 30 gave no replies.

Question 2. Do you accept in interchange cars of 40,000 and 50,000 lbs. capacity? If so, is the lading transferred? 4 answered no; 85, yes; 1 no for 40,000 and yes for 50,000; 1, should be accepted; 3, yes, lading transferred; 3, yes, depending on condition of car; 1, no, lading transferred and charged to us; and 32 gave no replies.

Question 3. Do you regard it practicable to prohibit the use of cars of 40,000 lbs. capacity in interchange? 20 answered no; 62, yes; 2, yes, with sufficient time limit; 2, not at present; 3, yes, depending on construction; 1, consider construction of car; and 40 gave no replies.

Question 4. Do you regard it practicable to prohibit the use of cars of 50,000 lbs. capacity in interchange? 30 answered no; 48, yes; 2, yes, in reasonable time; 3, not at present; 3, yes, depending on construction; 2, in reasonable time; 1, yes, for 40,000; 1, consider construction of car; 1, yes, unless cars are equipped with steel underframe or its equivalent and an all metal truck; and 39 gave no replies.

Of the 138 lines submitting data, the number of cars in revenue service on Jan. 1, 1914, of the several classes, is as follows:— 40,000 lbs. capacity or less: all steel, 8; metal draft arms, 215; wooden draft timbers extending through body bolsters, 29,122; wooden draft timbers extending to body bolsters, 20,522; grand total, 49,867. Of

these, 29,727 have metal body bolsters, and 6,359 American continuous draft gear.

50,000 lbs. capacity and less, but over 40,000 lbs.: steel underframe, 50; steel centre sills, 89; metal draft arms, 11,197; wooden draft timbers extending through body bolsters, 31,413; wooden draft timbers extending to body bolsters, 12,875; grand total, 55,624. Of these, 37,712 have metal body bolsters and 2,796 American continuous draft gear.

Over 50,000 lbs. and less than 60,000: all steel, 161; steel underframe, 492; steel centre sills, 2,217; metal draft arms, 9,192; wooden draft timbers extending through body bolsters, 1,746; wooden draft timbers extending to body bolsters, 5,515; grand total, 19,323. Of these, 17,188 have metal body bolsters, and 23, American continuous draft gear.

60,000 lbs. capacity: all steel, 445; steel underframe, 98,674; steel centre sills, 34,317; metal draft arms, 110,835; wooden draft timbers extending through body bolsters, 166,614; wooden draft timbers extending to body bolsters, 227,881; grand total, 638,766. Of these, 428,758 have metal body bolsters, and 29,617, American continuous draft gear.

The committee recommends that the following proposed rule be submitted to special letter ballot, so that it may, if approved, be embodied in the Rules of Interchange effective Oct. 1, 1914: "After Oct. 1, 1916, all cars of less than 60,000 lbs. capacity, having wooden or metal draft arms which do not extend beyond the body bolster, will not be accepted in interchange."

Report of Standing Committee on Car Wheels.

The Master Car Builders' Committee, W. C. A. Henry, Superintendent of Motive Power, Pennsylvania Rd., chairman, and of which R. W. Burnett, General Master Car Builder, C.P.R., is a member, reported in part as follows:

This subject originated with the Association of Manufacturers of Chilled Car Wheels, and from whom have been received a number of recommendations in the direction of heavier flanges. There is not sufficient available data on the latest design of chilled car wheel to warrant making any recommendations. To increase to any extent the width of flange will involve providing more clearance through frogs, guard rails and railway crossings. The Bureau of Standards of the Department of Commerce, U. S. A., is preparing to make an experimental study of chilled car wheels, which will include foundry practice, investigation into the chemistry, metallurgy and mechanics of wheels, etc., and we are informed that it is their intention to ask the wheel manufacturers and wheel users to co-operate in this investigation.

In order to provide means for measuring flat spots of 1 and 2 ins. long on passenger and freight car wheels respectively, it is recommended that two additional notches be provided on the upper edge of the present standard wheel defect gauge.

Errors were made in the revision of the specifications for wheels in 1913. Under

markings substitute "outside" for "inside," which is in accordance with previous practice. Under thermal test 2 mins. after pouring ceases, an examination must be made, and if the wheel is found broken in pieces, or if any cracks in the plate extend through or into the tread, all wheels of the same tapen size as the wheel broken will be rejected.

Under "branding," the name or brand of the manufacturer, date and serial number, shall be legibly stamped on each wheel; also purchaser's name and serial number, if specified. The tape size shall be legibly marked on each wheel.

The maximum gross weight to be carried by car wheels of 625 lb. weight is not in harmony with the specifications, and shall be corrected to specify a maximum gross weight not to exceed 95,000 lbs.

Physical test for rolled and forged steel wheels is still under investigation. At present, there are three diameters of solid steel wheels specified as recommended practice, 33, 36 and 38 ins., whereas for steel tired wheels there is but one diameter, 33 in. It would seem consistent that we have the same diameters for the steel tired as for the solid wheel.

The Association now has as recommended practice a tire 2½ in. thick, requiring three diameters of wheel centres, namely 28, 31 and 33 ins. To standardize the mounting of tire, wheel centres should be machined to the exact diameter specified, and the tires finish bored to the diameter of the centre less 1-1000 in. for each inch in diameter.

To conform more nearly to the outlines of flanges of maximum thickness the radius with which the gauging point at the throat is struck should be changed from ⅝ to 1 15-16 in. Also ⅝ in. radius for minimum flange thickness gauge to be changed to 1 13-16 in.

Report of Committee on Interline Loading of Commodities.

The Master Car Builders' committee, A. Kearney, Assistant Superintendent of Motive Power, Norfolk and Western Ry., chairman, reported as follows:

The establishment of a uniform code of rules for the interline loading of commodities, a subject referred to your committee for investigation, was received rather late in the year; indeed too late to permit the research it evidently requires. Hence your committee is only able at this time to offer a report of progress, with the assurance that an effort is being made to ascertain what seems to be necessary to satisfactorily meet the requirements.

Your committee frankly confesses it does not yet have a very clear conception of what is embraced in the question; at the same time it appreciates that there does not seem to be any doubt that a higher efficiency may be assured, and less loss experienced by more securely loading and packing commodities handled in interline shipments. What might be accomplished in that direction, however, is as yet uncertain.

Due to the short time your committee has had the subject in hand, opportunity has been lacking to secure information of any