If a Shipper needs to move 1 million pounds of cargo, how many truck trips does it take?

To move 1,000,000 lbs. of dry cargo:

Loading 44,000 lbs. per truck @80k gross limit = 22.7 trucks
Loading 54,000 lbs. per truck @90k gross limit = 18.5 trucks
Loading 64,000 lbs. per truck @100k gross limit = 15.6 trucks

How many lbs. of cargo is imported every year? How many lbs. exported? How many trucks trips does that take?

If loading more per trip, how many fewer miles are driven? Less congestion, less fuel used, less pollution, less risk of accidents?

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Intermodal Association of Chicago

LoadMatch & Drayage.com

Jason Hilsenbeck – President
www.intermodalofchicago.org
www.loadmatch.com = Container Load Board
www.drayage.com = Phonebook of Draymen

In 2020 per JOC PIERS data, in U.S. approximately 672,471,150,000 lbs was imported/exported in 37,504,110 TEU containers.

To move 500,000,000,000 lbs. of dry cargo:

Loading 44,000 lbs. per truck @80k gross limit = 11,363,636 trucks
Loading 54,000 lbs. per truck @90k gross limit = 9,259,259 trucks
Loading 64,000 lbs. per truck @100k gross limit = 7,812,500 trucks

Is it better or worse to have 3.5 million fewer trucks on the road?

Why isn't there a national federal weight policy in the U.S on six total axles, as in trailing equipment with three axles?

UNITED STATES:
80,000 lbs. gross limit
on five total axles
(since 1981)

More axles, better weight distribution, more braking power.

CANADA
87,000 lbs. gross limit on five axles
103,000 lbs. on six axles
118,000 lbs. on seven axles
(western provinces, ie: Alberta; 140,000 lbs. max)

MEXICO
93,600 lbs. gross limit on five axles
103,500 lbs. on six axles
113,400 lbs. on seven axles
(double tractor trailers 151,000 lbs.)

EUROPE
88,000 lbs gross limit on five axles
(88k lbs=40 metric ton rule vs 44 mt=97k lbs.)
(60 m.ton / 132,000 lbs. max in Sweden)
(Finland had 76 m.ton / 167,000 gross experiment)

https://nap.nationalacademies.org/read/14458/chapter/4#20
https://www.grupo-tt.com/pdfs/Pesos_maximos_en_europa.pdf
https://trans.info/france-44-ton-limit-shall-only-apply-to-national-transport-249746
https://www.researchgate.net/figure/MAXIMUM-TRUCK-WEIGHT-AND-SIZE-VALUES-FOR-MEXICO-US-AND-CANADA_tbl6_238790442

Note the dramatic weight distribution effect going from 2 to 3 axles:

Since 1981 in the U.S., FHWA national maximum weight limit rule per axle:

80,000 lbs max gross = 12k + 34k +34k

1st Axle (steer) = 12,000 lbs max
2nd Tandem (two drive axles) = 17,000 lbs + 17,000 lbs
3rd Tandem (two trailing axles) = 17,000 lbs + 17,000 lbs

* *no federal policy on having "tridem" (3 trailing axles) For possible solutions:*

LIMIT	1st Axle			Lbs per DRIVE AXLE	Lbs per TRAILING AXLE *
80,000 -	12,000=	68,000	/ 4 axles =	17,000+17000	17,000+17000
90,000 -	12,000=	78,000	/ 5 axles =	17,000+17000	14,600+14,600+14,600
97,000 -	12,000=	85,000	/ 5 axles =	17,000+17000	17,000+17000+17000
102,000 -	12,000=	90,000	/ 6 axles =	15,000+15,000+15,000	15,000+15,000+15,000

Is it better to have 17k per axle weight going over cracks in the road surface or 15k per axle?
Either way.. all the shipper's cargo in total is going to have to travel over a section of roadway.

More axles, better weight distribution, more braking power.

Who is for/against reducing # of trucks on the road, increasing trucking efficiency?

FOR:

- Shippers/Cargo Owners who pay for trucking.
- People who care about climate heating and reducing congestion.
- Trucking Companies who have the money to buy new equipment.

AGAINST:

- Railroads, Barge Lines
- Union Labor
- Trucking Companies who don’t have the money to buy new equipment

Many individual States have taken the lead on increasing maximum gross weight permits. Will the Federal Highway Administration ever take the initiative to bring the U.S. to a competitive level with rest of the world?

Electric battery trucks weigh much more than diesel powered trucks, do we cut back the cargo moved, or increase gross weight to make up the clean technology difference?

What if for improving roads to carry more weight, we create a “Class 9” designation, for a fee you get higher gross weight?

Maybe for increasing gross weight:

- Restrict speeds on heavier loads?
- Require heavy trucks to have crash avoidance technology?

More cargo moved per truck trip is a competitive advantage for the nation, and fewer truck trips reduces environmental impact.

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