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DEPARTMENT OF TRADE AND COMMERCE

DOMINION BUREAU OF STATISTICS

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GENERAL MANUFACTURING STATISTICS

MONTHLY REPORT
ON
CONSUMPTION,
PRODUCTION AND INVENTORIES
OF RUBBER,
DECEMBER, 1947



OTTAWA
1948

DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
GENERAL MANUFACTURING STATISTICS
OTTAWA - CANADA

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CONSUMPTION, PRODUCTION AND INVENTORIES OF RUBBER

DECEMBER, 1947

Commencing with March 1947, the Dominion Bureau of Statistics undertook the continuance and publication, in a modified form, of the monthly rubber statistics developed during the years of control. Historical tables were prepared, largely from the Rubber Control records, and are included in this report in order that valuable material may thus be presented in a condensed form, and also that relationships may be established for the evaluation of current data. These statistics show clearly, during the later war years, the impact on rubber consumers of the loss of natural rubber supplies, and the consequent growth of the synthetic rubber industry. They also evidence, in the post-war period, the gradually increasing availability of natural rubber, and, since they show consumption by broad end products divisions, changes in the percentages of natural and synthetic consumed in each division may be said to contain inferences as to the suitabilities of each type.

Early publications in this series contained a Rubber Balance Statement, in which an attempt was made to account for all rubber entering or produced in Canada. However, assumptions which were valid during the period of control due to the fact that the movements of the commodity were under direction, are no longer sufficiently reliable to permit the publication of import - export data based on receipts and sales of manufacturers, or to assume that the imports of some specific synthetic by a particular manufacturer represent the total new supply of this synthetic. Nor can the inventories of manufacturers, whether producing or consuming, be considered a total since the re-establishment of normal trade channels indicates dealer inventories outside the scope of an industry survey. Also the quantity of foreign or domestic rubber in transit at the close of any period is not known.

Therefore, the statistics now available monthly, are considered only to represent clearly and accurately (a) the new domestic production of synthetic and reclaim, and the inventories of firms reporting this production, and (b) the total consumption of rubber, whether foreign or domestic, together with inventories, receipts and sales of rubber by consuming manufacturers in all industries. The addition of the two inventories give the total stocks held by industry.

The historical tables have now been revised to omit import-export columns, and the current rubber balance statement has been broken down into (a) and (b) as outlined in the preceding paragraphs.

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However, despite the fact that the total available supply is not known and that it is impossible to relate shipments and receipts, the data given in (b) do ultimately account for the total consumption of rubber in Canada, and should be capable of being co-related with new production and export - import data (as compiled by External Trade Branch, D.B.S.) over a period of months.

The sections showing consumption of rubber, by types, and by end products have not been changed, since they do correctly represent total consumption in each case.

Section A. Canadian Rubber Balance Statement

This section includes summary data on natural, synthetic and reclaim rubber, showing stocks, domestic production and domestic consumption. Table 1 gives yearly averages, 1939 - 1947, and actual months, July, 1945 to December, 1947. Table 2 gives details for November and December, 1947.

For detailed data for consumption, by specific types, and by end products classifications, wherever possible, see Section B, Natural Rubber; Section C, Synthetic Rubber; and Section D, Reclaim Rubber.

Table 1. - Summary Statement of all Rubber Stocks, Domestic Production, Domestic Consumption showing Monthly Averages, 1939 - 1947, and Actual Monthly Totals, July, 1945 to December, 1947.

Weights are given in Long Tons (2,240 pounds)

Period	Stocks, End of Period			Domestic Production		Domestic Consumption		
	Natural	Syn- thetic	Re- claim	Syn- thetic	Re- claim	Natural	Syn- thetic	Re- claim
Monthly Averages								
1939	n.a.	n.a.	n.a.	-	-	2,635	-	626
1940	n.a.	n.a.	n.a.	-	-	3,083	-	703
1941	n.a.	n.a.	n.a.	-	-	4,436	-	789
1942	n.a.	n.a.	4,560	-	-	3,512	-	1,042
1943	8,165	2,292	4,822	210	392	2,434	307	1,166
1944	5,399	3,641	3,516	2,902	263	799	2,061	1,052
1945	3,703	4,107	2,219	3,810	276	491	2,995	1,276
1946	3,662	5,592	2,786	4,248	331	792	2,468	1,178
1947	6,992	4,333	2,672	3,533	344	2,690	2,432	1,360

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Table 1. - Summary Statement of all Rubber Stocks, Domestic Production, Domestic Consumption showing Monthly Averages, 1939 - 1947, and Actual Monthly Totals, July, 1945 to December, 1947. - Concluded.

Weights are given in Long Tons (2,240 pounds)

Period	Stocks, End of Period			Domestic Production		Domestic Consumption		
	Natural	Syn- thetic	Re- claim	Syn- thetic	Re- claim	Natural	Syn- thetic	Re- claim
Monthly Totals								
1945 - July	4,007	5,284	2,700	4,007	201	415	2,728	1,003
Aug.	4,798	4,989	2,809	3,399	309	349	2,319	1,117
Sept.	4,517	3,938	2,617	2,783	265	383	2,948	1,357
Oct.	4,637	4,146	2,456	3,541	327	395	3,206	1,483
Nov.	4,165	4,106	2,102	3,984	353	473	3,613	1,559
Dec.	3,703	4,124	2,219	3,575	249	461	3,082	1,373
1946 - Jan.	3,025	4,995	2,150	4,255	290	674	3,446	1,525
Feb.	2,466	4,183	2,228	3,818	326	707	3,356	1,400
Mar.	3,000	3,871	2,358	3,816	343	835	3,741	1,537
Apr.	2,845	3,773	2,575	4,317	288	817	3,808	1,503
May	2,278	3,332	2,572	3,707	341	938	3,699	1,418
June	1,775	3,978	2,409	4,542	300	702	2,946	1,363
July	2,021	7,058	2,672	4,282	264	172	588	519
Aug.	2,929	9,045	3,054	4,570	352	229	530	594
Sept.	4,307	8,742	3,235	3,728	349	294	635	656
Oct.	5,752	7,734	3,530	4,526	344	433	1,051	846
Nov.	7,661	5,829	3,194	4,634	414	1,854	3,048	1,485
Dec.	5,885	4,565	3,455	4,786	356	1,850	2,768	1,292
1947 - Jan.	3,729	4,316	3,195	4,408	329	2,153	3,195	1,533
Feb.	2,876	4,551	3,114	4,024	330	2,224	2,823	1,463
Mar.	4,473	5,344	2,872	4,466	360	2,440	2,876	1,570
Apr.	7,187	5,473	2,931	4,628	360	2,476	2,942	1,395
May	9,992	4,953	2,772	3,467	359	2,643	2,889	1,438
June	10,108	4,488	2,599	3,392	334	2,627	2,540	1,299
July	10,045	3,733	2,629	3,480	225	2,433	2,059	1,120
Aug.	9,679	4,269	2,680	3,533	298	2,192	1,719	983
Sept.	8,129	3,349	2,451	1,944	337	3,226	2,113	1,393
Oct.	7,167	3,475	2,440	3,034	424	3,330	2,080	1,397
Nov.	5,260	3,846	2,093	2,953	372	3,216	1,962	1,417
Dec.	5,264	4,200	2,282	3,064	397	3,314	1,980	1,314

Note: Poundage of Guayule Rubber included in Natural Rubber totals is on a deresinated basis. All other wild rubber is calculated on a Washed and Dried basis. Also it should be particularly noted that all stocks are taken at the raw level, or the level on which rubber may be used as a material. They would include compound latex purchased for consumption by a manufacturer, but would not include the semi-processed, or finished goods, held in inventory by the manufacturer.

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Table 2(a). - NEW SUPPLY. Statement of Manufacturers producing Synthetic and Reclaim Rubber.

(Weight in Long Tons)

Type of Rubber	Inventory December 1, 1947	Production	Inventory December 31, 1947
<u>Natural Rubber -</u>			
Crude Rubber	-	-	-
Natural Latex	90	-	77
Total Natural Rubber	90	-	77
<u>Synthetic Rubber -</u>			
Buna S	861	2,610	831
Butyl	1,573	454	1,591
Neoprene	17	-	20
All other	-	-	-
Total Synthetic Rubber ..	2,451	3,064	2,442
Total Natural and Synthetic Rubber	2,541	3,064	2,519
<u>Reclaim Rubber -</u>			
Dispersions	37	21	25
Other than dispersions	177	376	140
Total Reclaim Rubber	214	397	165
GRAND TOTAL	2,755	3,461	2,684

Table 2(b). - CONSUMPTION. Statement of Manufacturers Consuming Rubber.

(Weight in Long Tons)

Type of Rubber	Inventory Dec. 1, 1947	Receipts (imports, etc.)	Con- sumption	Sales (exports, etc.)	Inventory Dec. 31, 1947
<u>Natural Rubber -</u>					
Crude Rubber	5,008	3,250	3,247	11	5,000
Natural Latex	162	92	67	-	187
Total Natural Rubber	5,170	3,342	3,314	11	5,187
<u>Synthetic Rubber -</u>					
Buna S	1,111	1,827	1,509	29	1,400
Butyl	194	516	413	9	288
Neoprene	63	37	55	-	45
All other	27	4	3	3	25
Total Synthetic Rubber ..	1,395	2,384	1,980	41	1,758
Total Natural and Synthetic Rubber	6,565	5,726	5,294	52	6,945
<u>Reclaim Rubber -</u>					
Dispersions	72	53	56	-	69
Other than dispersions	1,807	1,499	1,258	-	2,048
Total Reclaim Rubber	1,879	1,552	1,314	-	2,117
GRAND TOTAL	8,444	7,278	6,608	52	9,062

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Section B. Natural Rubber

The November and December 1947 consumption of Natural Rubber showing crude rubber and natural latex separately, and arranged according to end products classifications, is shown in Table 5.

Summary data, by months, January, 1946 to December, 1947 are shown in Table 4, and 1939 - 1947 yearly totals and monthly averages are given in Table 3. Crude rubber and natural latex do not appear separately in summary tables, but are combined under the heading "Natural".

For summary data on Synthetics, Natural and other rubber stocks, domestic production, domestic consumption, expressed in long tons, see Table 1. However, when comparing monthly consumption of natural rubber, as given in Table 1, with consumption as shown in detailed tables by end product classification, it should be noted that in Table 1, Guayule Rubber is reduced to a deresinated basis, whereas in the detailed tables it is included at the weight reported by the firms. Commencing with March 1, 1947, poundage of Guayule included in all tables is on a deresinated basis, and totals should, therefore, agree.

Table 3. - Consumption of Natural Rubber in Total,
and Showing Monthly Averages, 1939-1947.

<u>Year</u>	<u>Total</u> <u>Pounds</u>	<u>Monthly</u> <u>Averages</u> <u>Pounds</u>
1939	70,828,800	5,902,400
1940	82,871,040	6,905,920
1941	119,239,680	9,936,640
1942	94,402,560	7,866,880
1943	65,425,920	5,452,160
1944	21,477,120	1,789,760
1945	13,198,080	1,099,840
1946	21,459,286	1,788,273
1947	72,294,000	6,024,500

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Table 4. - Consumption of Natural Rubber in Total, by End Products, and by Months, January, 1946 - December, 1947
Showing also percentage of Natural to All Synthetic and Natural Consumed.

Month	Natural Rubber		Used in the manufacture of -					
	Total	Percentage of all rubber	Tires and tubes	Repair Materials	Mechanical Goods	Wire and cable	Footwear	Miscellaneous
	000's pounds	Per cent	000's pounds	000's pounds	000's pounds	000's pounds	000's pounds	000's pounds
1946 - January	1,546	16.68	1,065	40	97	4	307	32
February	1,624	17.78	1,054	34	99	5	395	37
March	1,905	18.60	1,232	25	122	11	469	46
April	1,855	17.85	1,214	26	145	14	405	50
May	2,116	20.34	1,404	33	139	18	448	74
June	1,576	29.26	964	26	114	26	380	67
July	388	22.72	98	4	38	9	193	45
August	513	30.21	154	3	50	11	225	71
September ...	658	31.64	252	13	70	13	248	62
October	970	29.18	488	15	95	13	283	76
November	4,163	37.89	3,373	37	230	25	411	88
December	4,145	40.06	3,311	65	225	25	413	106
1947 - January	4,824	40.26	3,925	56	256	20	436	130
February	4,982	44.06	3,990	50	290	24	507	119
March	5,465	45.89	4,276	42	323	22	624	178
April	5,546	45.69	4,375	42	302	25	612	190
May	5,921	47.78	4,473	30	354	35	792	237
June	5,885	50.84	4,361	39	387	45	788	265
July	5,448	54.16	4,133	36	410	14	641	214
August	4,909	56.03	3,285	38	366	36	962	222
September ...	7,228	60.42	5,240	47	581	53	991	316
October	7,459	61.55	5,348	56	701	83	939	332
November	7,205	62.10	5,303	56	593	59	884	310
December	7,422	62.59	5,545	57	623	92	813	292

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Table 5(a). - Consumption of Natural Rubber, by Types and by End Product Classification, December, 1947

End Products	Crude Rubber (excluding latex)	Latex	Total Crude and Latex
	Pounds	Pounds	Pounds
1. Tires and tubes	5,523,336	21,979	5,545,315
2. Tire repair materials (including cements and camelback)	57,284	100	57,384
3. Mechanical goods	622,978	91	623,069
4. Wire and cable	91,668	-	91,668
5. Footwear (including heels, soles, etc.)	811,471	1,383	812,854
6. Miscellaneous	166,298	126,045	292,343
TOTAL	7,273,035	149,598	7,422,633

Table 5(b). - Consumption of Natural Rubber, by Types and by End Product Classification, November, 1947

End Products	Crude Rubber (excluding latex)	Latex	Total Crude and Latex
	Pounds	Pounds	Pounds
1. Tires and tubes	5,288,195	14,488	5,302,683
2. Tire repair materials (including cements and camelback)	56,260	50	56,310
3. Mechanical goods	592,146	915	593,061
4. Wire and cable	59,132	-	59,132
5. Footwear (including heels, soles, etc.)	881,561	2,088	883,649
6. Miscellaneous	180,991	129,174	310,165
TOTAL	7,058,285	146,715	7,205,000

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Section C. Synthetic Rubber

The November and December, 1947 consumption of Synthetic Rubber is shown by type, and by end product classification, in Table 9.

Summary data, by months, January, 1946 to December, 1947, are shown in Tables 7 and 8, while 1943 - 1947 yearly totals and monthly averages are given in Table 6.

For summary data on Synthetic and other rubber stocks, domestic production, domestic consumption, expressed in long tons, see Table 1.

Table 6. - Consumption of Synthetic Rubber in Total, and showing Monthly Averages, 1943 - 1947.

<u>Year</u>	<u>Total</u>	<u>Monthly Average</u>
1943	8,252,160 pounds	687,680 pounds
1944	55,399,680 "	4,616,640 "
1945	80,505,600 "	6,708,800 "
1946	66,357,973 "	5,529,831 "
1947	65,367,660 "	5,447,305 "

Table 7. - Consumption of Synthetic Rubber, by Types and by Months, January, 1946 to December, 1947

<u>Month</u>	<u>Buna S</u>	<u>Butyl</u>	<u>Neoprene</u>	<u>Other</u>	<u>Total</u>
	<u>Pounds</u>	<u>Pounds</u>	<u>Pounds</u>	<u>Pounds</u>	<u>Pounds</u>
1946 - January	6,525,620	966,922	210,560	18,912	7,722,014
February	6,324,833	934,575	228,480	22,881	7,510,769
March	7,146,789	923,442	286,720	27,825	8,384,776
April	7,273,779	991,946	248,640	21,544	8,535,909
May	6,945,265	1,030,234	277,760	35,315	8,288,574
June	5,515,190	819,974	253,120	19,177	6,607,461
July	1,064,494	79,115	165,760	8,567	1,317,936
August	973,714	62,611	143,360	6,022	1,185,707
September	1,138,981	108,720	170,240	4,355	1,422,296
October	1,921,885	246,885	176,960	9,066	2,354,796
November	5,548,222	1,029,746	237,440	10,268	6,825,676
December	5,000,720	953,020	237,680	10,639	6,202,059
1947 - January	5,710,124	1,199,032	230,720	18,173	7,158,049
February	5,034,216	1,095,348	176,960	18,814	6,325,338
March	5,122,804	1,001,714	241,890	76,249	6,442,657
April	5,201,926	1,162,252	217,750	9,477	6,591,405
May	5,135,107	1,092,810	225,866	16,464	6,470,247
June	4,447,404	960,038	219,914	63,014	5,690,370
July	3,689,525	759,452	146,944	15,129	4,611,050
August	3,059,955	665,754	116,599	10,323	3,852,631
September	3,661,306	882,330	177,278	13,099	4,734,013
October	3,607,668	858,690	174,591	18,630	4,659,579
November	3,394,278	815,672	169,987	16,585	4,396,522
December	3,380,775	925,781	122,208	7,035	4,435,799

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Table 8. - Consumption of Synthetic Rubber, in Total, by End Products, and by Months, January, 1946 - December, 1947
Showing also Percentage of Synthetic to all Natural and Synthetic Consumed.

Month	Synthetic Rubber		Used in the manufacture of -					
	Total	Percentage of all rubber	Tires and tubes	Repair Materials	Mechanical Goods	Wire and cable	Footwear	Miscel- laneous
	000's pounds	Per cent	000's pounds	000's pounds	000's pounds	000's pounds	000's pounds	000's pounds
1946 - January	7,722	85.32	6,010	102	504	160	430	517
February	7,511	82.22	5,925	82	587	134	430	352
March	8,385	81.40	6,506	66	733	141	530	408
April	8,536	82.15	6,771	47	784	133	338	463
May	8,289	79.66	6,368	79	736	163	449	494
June	6,607	70.74	4,894	86	646	162	379	441
July	1,318	77.28	399	6	294	104	140	375
August	1,186	69.79	213	-	204	121	204	443
September ...	1,422	68.36	407	14	250	130	206	415
October	2,355	70.82	1,039	29	388	150	253	497
November	6,826	62.11	5,125	112	723	141	271	454
December	6,202	59.94	4,566	108	637	162	298	430
1947 - January	7,158	59.74	5,194	95	849	183	377	459
February	6,325	55.94	4,828	91	474	164	375	395
March	6,443	54.11	4,717	63	670	168	519	306
April	6,591	54.31	4,774	69	646	165	575	362
May	6,470	52.22	4,877	51	586	231	401	325
June	5,690	49.16	4,340	37	616	164	210	324
July	4,611	45.84	3,532	37	446	114	307	175
August	3,853	43.97	2,876	33	311	155	314	163
September ...	4,734	39.58	3,370	37	517	208	378	224
October	4,660	38.45	3,385	27	436	190	365	257
November	4,397	37.90	3,158	45	368	253	323	250
December	4,436	37.41	3,381	61	334	157	314	189

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Table 9(a). - Consumption of Synthetic Rubber, by Types and by End Product Classification, December, 1947

End Products	Buna S	Butyl	Neoprene	Other	Total Synthetic
	Pounds	Pounds	Pounds	Pounds	Pounds
1. Tires and tubes	2,464,575	916,693	-	-	3,381,268
2. Tire repair materials (including cements and camelback)	60,652	645	-	-	61,297
3. Mechanical goods	269,557	2,771	60,718	1,239	334,285
4. Wire and cable	118,901	-	37,732	-	156,633
5. Footwear (including heels, soles, etc.) ...	310,169	-	2,374	1,034	313,577
6. Miscellaneous	156,921	5,672	21,384	4,762	188,739
TOTAL	3,380,775	925,781	122,208	7,035	4,435,799

Table 9(b). - Consumption of Synthetic Rubber, by Types and by End Product Classification, November, 1947

End Products	Buna S	Butyl	Neoprene	Other	Total Synthetic
	Pounds	Pounds	Pounds	Pounds	Pounds
1. Tires and tubes	2,363,314	794,893	-	-	3,158,207
2. Tire repair materials (including cements and camelback)	43,991	816	-	-	44,807
3. Mechanical goods	298,794	2,921	58,512	7,867	368,094
4. Wire and cable	189,325	-	63,286	-	252,611
5. Footwear (including heels, soles, etc.) ...	315,714	-	3,430	3,425	322,569
6. Miscellaneous	183,140	17,042	44,759	5,293	250,234
TOTAL	3,394,278	815,672	169,987	16,585	4,396,522

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Section D. Reclaim Rubber

No end product consumption data are available for Reclaim Rubber. However, Reclaim is usually classified as (a) Dispersions, and (b) Other than dispersions. This breakdown gives some broad indication of the end product use. "Other than Dispersions" would compare with crude rubber, while "Dispersions" would compare with natural latex.

(In general, dispersions are mechanical dispersions of rubber, resins of reclaim, the products being similar to compounded latex. Basically, they are a suspension of rubber or resin in water. Natural rubber latex could be considered as the "classic material", and the others as later developments that come about through necessity of advancing technological knowledge. They are used where latex was, might be, or could be used.)

Tables 10 and 11 give the consumption of Reclaim, in total, for the years 1939 - 1947, with monthly averages for each year and broken down into Dispersions and Other than Dispersions, by actual months, July, 1945 to December, 1947.

For summary data on Reclaim, Synthetics, and other rubber stocks, domestic production, domestic consumption, expressed in long tons, see Table 1.

Table 10. - Consumption of Reclaim Rubber in Total,
and by Monthly Averages, 1939 - 1947.

<u>Year</u>	<u>Total</u> Pounds	<u>Monthly</u> <u>Averages</u> Pounds
1939	16,826,880	1,402,240
1940	18,896,640	1,574,720
1941	21,208,320	1,767,360
1942	28,008,960	2,334,080
1943	31,342,080	2,611,840
1944	28,277,760	2,356,480
1945	34,298,880	2,858,240
1946	31,673,600	2,639,467
1947	36,418,788	3,034,899

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Table 11. - Consumption of Reclaim Rubber, by Types and by Months, July, 1945 to December, 1947.

Month	Total	Dispersions	Other than Dispersions
	Pounds	Pounds	Pounds
1945 - July	2,246,720	125,440	2,121,280
August	2,502,080	112,000	2,390,080
September	3,039,680	132,160	2,907,520
October	3,321,920	116,480	3,205,440
November	3,492,160	132,160	3,360,000
December	3,075,520	109,760	2,965,760
1946 - January	3,416,000	145,600	3,270,400
February	3,136,000	134,400	3,001,600
March	3,442,880	132,160	3,310,720
April	3,371,200	129,920	3,241,280
May	3,176,320	132,160	3,044,160
June	3,053,120	89,600	2,963,520
July	1,162,560	4,480	1,158,080
August	1,330,560	2,240	1,328,320
September	1,469,440	4,480	1,464,960
October	1,895,040	33,600	1,861,440
November	3,326,400	138,880	3,187,520
December	2,894,080	116,480	2,777,600
1947 - January	3,286,080	147,840	3,433,920
February	3,277,120	129,920	3,147,200
March	3,515,749	134,392	3,381,357
April	3,124,794	202,416	2,922,378
May	3,221,826	168,592	3,053,234
June	2,910,604	166,105	2,744,499
July	2,510,217	144,393	2,365,824
August	2,202,171	130,975	2,071,196
September	3,122,228	158,296	2,963,932
October	3,129,432	145,241	2,984,191
November	3,174,704	140,170	3,034,534
December	2,943,863	125,594	2,818,269

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