

LAMEA Torque Sensor Market By Type (Rotary Torque Sensors and Reaction Torque Sensors) By Technology (Strain Gauge, Magnetoelastic, Surface Acoustic Wave and Others) By Application (Automotive, Test & Measurement, Aerospace & Defense, Industrial and Others) By Country, Industry Analysis and Forecast, 2019 - 2025

https://marketpublishers.com/r/L0CC0E03A2B1EN.html

Date: March 2020

Pages: 93

Price: US\$ 1,500.00 (Single User License)

ID: L0CC0E03A2B1EN

Abstracts

The Latin America, Middle East and Africa Torque Sensor Market would witness market growth of 9.2% CAGR during the forecast period (2019-2025).

Reaction torque sensors are used in situations where the cable is not damaged by limited rotation. Its use minimizes error that might occur because of rotating component inertia. They are used to calibrate torque wrenches, test aircraft fasteners for breaking torque and track the opening torque of child-proof containers. Many widely accepted methods for measuring torque depend on machine train mounting transducers or rotating shaft. These processes, with few exceptions, employ strain gauges. Each approach has both advantages and disadvantages, many of which are based on implementation. A detailed understanding of the application is a requisite for the best solution.

Two popular ways to extract torque measurements are through strain-gauging the shaft and by using in-line torque cells. Both have two technological obstacles, getting power over the stationary/rotating distance to the gauges, as well as getting back the signal. The techniques of bridging the gap are either contact or contactless. A torque sensor is a transducer that transforms a mechanical torsional input into a signal for electrical output. In other words, the torque sensor is called a tool used for recording and



calculating the torque of a rotating mechanism. Machines such as gearboxes, engines, electric motors, and crankshafts form part of the rotating system, and torque sensors ensure high quality and performance optimization of the system.

The adoption of torque sensor across the commercial sector is estimated to accelerate at a rapid rate over the forecast period. This trend can be associated with various factors like increased demand for high performance vehicles, extensive penetration of EPS in passenger vehicles, and a surge in the demand for new torque measurement technologies. However, high installation costs are likely to impede global market growth. In the commercial sector, the demand for torque sensors is evaluated and measured according to the impacts of drivers, restrictions, and opportunities.

Based on Type, the market is segmented into Rotary Torque Sensors and Reaction Torque Sensors. Based on Technology, the market is segmented into Strain Gauge, Magnetoelastic, Surface Acoustic Wave and Others. Based on Application, the market is segmented into Automotive, Test & Measurement, Aerospace & Defense, Industrial and Others. Based on countries, the market is segmented into Brazil, Argentina, UAE, Saudi Arabia, South Africa, Nigeria, and Rest of LAMEA.

The market research report covers the analysis of key stake holders of the market. Key companies profiled in the report include Honeywell International, Inc., ABB Group, Infineon Technologies AG, MTS Systems Corporation (PCB Piezotronics, Inc.), Snap-On, Inc. (Norbar Torque Tools), Crane Electronics, Ltd., FUTEK Advanced Sensor Technology, Inc, Applied Measurements Ltd., Kistler Group (Kistler Holding AG), and MagCanica, Inc.

Scope of the Study

Market Segmentation:

By Type

Rotary Torque Sensors

Reaction Torque Sensors

By Technology



	Strain Gauge	
	Magnetoelastic	
	Surface Acoustic Wave	
	Others	
By Application		
	Automotive	
	Test & Measurement	
	Aerospace & Defense	
	Industrial	
	Others	
By Country		
	Brazil	
	Argentina	
	UAE	
	Saudi Arabia	
	South Africa	
	Nigeria	
	Rest of LAMEA	



Companies Profiled

Honeywell International, Inc.

ABB Group

Infineon Technologies AG

MTS Systems Corporation (PCB Piezotronics, Inc.)

Snap-On, Inc. (Norbar Torque Tools)

Crane Electronics, Ltd.

FUTEK Advanced Sensor Technology, Inc.

Applied Measurements Ltd.

Kistler Group (Kistler Holding AG)

MagCanica, Inc.

Unique Offerings from KBV Research

Exhaustive coverage

Highest number of market tables and figures

Subscription based model available

Guaranteed best price

Assured post sales research support with 10% customization free



Contents

CHAPTER 1. MARKET SCOPE & METHODOLOGY

- 1.1 Market Definition
- 1.2 Objectives
- 1.3 Market Scope
- 1.4 Segmentation
 - 1.4.1 Latin America, Middle East and Africa (LAMEA) Torque Sensor Market, by Type
- 1.4.2 Latin America, Middle East and Africa (LAMEA) Torque Sensor Market, by Technology
- 1.4.3 Latin America, Middle East and Africa (LAMEA) Torque Sensor Market, by Application
- 1.4.4 Latin America, Middle East and Africa (LAMEA) Torque Sensor Market, by Country
- 1.5 Methodology for the research

CHAPTER 2. MARKET OVERVIEW

- 2.1 Introduction
 - 2.1.1 Overview
 - 2.1.2 Executive Summary
 - 2.1.3 Market Composition and Scenario
- 2.2 Key Factors Impacting the Market
 - 2.2.1 Market Drivers
 - 2.2.2 Market Restraints

CHAPTER 3. LAMEA TORQUE SENSOR MARKET BY TYPE

- 3.1 LAMEA Torque Sensor Rotary Torque Sensors Market by Country
- 3.2 LAMEA Torque Sensor Reaction Torque Sensors Market by Country

CHAPTER 4. LAMEA TORQUE SENSOR MARKET BY TECHNOLOGY

- 4.1 LAMEA Strain Gauge Torque Sensor Market by Country
- 4.2 LAMEA Magnetoelastic Torque Sensor Market by Country
- 4.3 LAMEA Surface Acoustic Wave Torque Sensor Market by Country
- 4.4 LAMEA Other Technology Torque Sensor Market by Country



CHAPTER 5. LAMEA TORQUE SENSOR MARKET BY APPLICATION

- 5.1 LAMEA Automotive Torque Sensor Market by Country
- 5.2 LAMEA Test & Measurement Torque Sensor Market by Country
- 5.3 LAMEA Aerospace & Defense Torque Sensor Market by Country
- 5.4 LAMEA Industrial Torque Sensor Market by Country
- 5.5 LAMEA Others Torque Sensor Market by Country

CHAPTER 6. LAMEA TORQUE SENSOR MARKET BY COUNTRY

- 6.1 Brazil Torque Sensor Market
 - 6.1.1 Brazil Torque Sensor Market by Type
 - 6.1.2 Brazil Torque Sensor Market by Technology
 - 6.1.3 Brazil Torque Sensor Market by Application
- 6.2 Argentina Torque Sensor Market
 - 6.2.1 Argentina Torque Sensor Market by Type
 - 6.2.2 Argentina Torque Sensor Market by Technology
 - 6.2.3 Argentina Torque Sensor Market by Application
- 6.3 UAE Torque Sensor Market
 - 6.3.1 UAE Torque Sensor Market by Type
 - 6.3.2 UAE Torque Sensor Market by Technology
 - 6.3.3 UAE Torque Sensor Market by Application
- 6.4 Saudi Arabia Torque Sensor Market
 - 6.4.1 Saudi Arabia Torque Sensor Market by Type
 - 6.4.2 Saudi Arabia Torque Sensor Market by Technology
 - 6.4.3 Saudi Arabia Torque Sensor Market by Application
- 6.5 South Africa Torque Sensor Market
 - 6.5.1 South Africa Torque Sensor Market by Type
 - 6.5.2 South Africa Torque Sensor Market by Technology
 - 6.5.3 South Africa Torque Sensor Market by Application
- 6.6 Nigeria Torque Sensor Market
 - 6.6.1 Nigeria Torque Sensor Market by Type
 - 6.6.2 Nigeria Torque Sensor Market by Technology
 - 6.6.3 Nigeria Torque Sensor Market by Application
- 6.7 Rest of LAMEA Torque Sensor Market
 - 6.7.1 Rest of LAMEA Torque Sensor Market by Type
 - 6.7.2 Rest of LAMEA Torque Sensor Market by Technology
 - 6.7.3 Rest of LAMEA Torque Sensor Market by Application



CHAPTER 7. COMPANY PROFILES

- 7.1 Honeywell International, Inc.
 - 7.1.1 Company Overview
 - 7.1.2 Financial Analysis
 - 7.1.3 Regional & Segmental Analysis
 - 7.1.4 Research & Development Expenses
 - 7.1.5 Recent strategies and developments:
 - 7.1.5.1 Product Launches and Product Expansions:
 - 7.1.6 SWOT Analysis
- 7.2 ABB Group
 - 7.2.1 Company Overview
 - 7.2.2 Financial Analysis
 - 7.2.3 Segmental and Regional Analysis
 - 7.2.4 Research & Development Expense
 - 7.2.5 Recent strategies and developments:
 - 7.2.5.1 Product Launches and Product Expansions:
 - 7.2.5.2 Partnerships, Collaborations, and Agreements:
 - 7.2.6 SWOT Analysis
- 7.3 Infineon Technologies AG
 - 7.3.1 Company Overview
 - 7.3.2 Financial Analysis
 - 7.3.3 Segmental and Regional Analysis
 - 7.3.4 Research & Development Expense
 - 7.3.5 SWOT Analysis
- 7.4 MTS Systems Corporation (PCB Piezotronics, Inc.)
 - 7.4.1 Company Overview
 - 7.4.2 Financial Analysis
 - 7.4.3 Segmental and Regional Analysis
 - 7.4.4 Research & Development Expense
 - 7.4.5 SWOT Analysis
- 7.5 Snap-On, Inc. (Norbar Torque Tools)
 - 7.5.1 Company Overview
 - 7.5.2 Financial Analysis
- 7.5.3 Segmental and Regional Analysis
- 7.5.4 Research & Engineering Expense
- 7.5.5 Recent strategies and developments:
- 7.5.5.1 Product Launches and Product Expansions:
- 7.6 Crane electronics, Ltd.



- 7.6.1 Company Overview
- 7.7 FUTEK Advanced Sensor Technology, Inc.
 - 7.7.1 Company Overview
 - 7.7.2 Recent strategies and developments:
 - 7.7.2.1 Product Launches and Product Expansions:
- 7.8 Applied Measurements Ltd.
 - 7.8.1 Company Overview
- 7.9 Kistler Group (Kistler Holding AG)
 - 7.9.1 Company Overview
 - 7.9.2 Recent strategies and developments:
 - 7.9.2.1 Product Launches and Product Expansions:
 - 7.9.2.2 Partnerships, Collaborations, and Agreements:
 - 7.9.2.3 Geographical Expansions:
 - 7.9.2.4 Acquisition and Mergers:
- 7.1 MagCanica, Inc.
 - 7.10.1 Company Overview



List Of Tables

LIST OF TABLES

TABLE 1 LAMEA TORQUE SENSOR MARKET, 2015 - 2018, USD MILLION

TABLE 2 LAMEA TORQUE SENSOR MARKET, 2019 - 2025, USD MILLION

TABLE 3 LAMEA TORQUE SENSOR MARKET BY TYPE, 2015 - 2018, USD MILLION

TABLE 4 LAMEA TORQUE SENSOR MARKET BY TYPE, 2019 - 2025, USD MILLION

TABLE 5 LAMEA TORQUE SENSOR ROTARY TORQUE SENSORS MARKET BY

COUNTRY, 2015 - 2018, USD MILLION

TABLE 6 LAMEA TORQUE SENSOR ROTARY TORQUE SENSORS MARKET BY COUNTRY, 2019 - 2025, USD MILLION

TABLE 7 LAMEA TORQUE SENSOR REACTION TORQUE SENSORS MARKET BY COUNTRY, 2015 - 2018, USD MILLION

TABLE 8 LAMEA TORQUE SENSOR REACTION TORQUE SENSORS MARKET BY COUNTRY, 2019 - 2025, USD MILLION

TABLE 9 LAMEA TORQUE SENSOR MARKET BY TECHNOLOGY, 2015 - 2018, USD MILLION

TABLE 10 LAMEA TORQUE SENSOR MARKET BY TECHNOLOGY, 2019 - 2025, USD MILLION

TABLE 11 LAMEA STRAIN GAUGE TORQUE SENSOR MARKET BY COUNTRY, 2015 - 2018, USD MILLION

TABLE 12 LAMEA STRAIN GAUGE TORQUE SENSOR MARKET BY COUNTRY, 2019 - 2025. USD MILLION

TABLE 13 LAMEA MAGNETOELASTIC TORQUE SENSOR MARKET BY COUNTRY, 2015 - 2018, USD MILLION

TABLE 14 LAMEA MAGNETOELASTIC TORQUE SENSOR MARKET BY COUNTRY, 2019 - 2025, USD MILLION

TABLE 15 LAMEA SURFACE ACOUSTIC WAVE TORQUE SENSOR MARKET BY COUNTRY. 2015 - 2018. USD MILLION

TABLE 16 LAMEA SURFACE ACOUSTIC WAVE TORQUE SENSOR MARKET BY COUNTRY, 2019 - 2025, USD MILLION

TABLE 17 LAMEA OTHER TECHNOLOGY TORQUE SENSOR MARKET BY COUNTRY, 2015 - 2018, USD MILLION

TABLE 18 LAMEA OTHER TECHNOLOGY TORQUE SENSOR MARKET BY COUNTRY, 2019 - 2025, USD MILLION

TABLE 19 LAMEA TORQUE SENSOR MARKET BY APPLICATION, 2015 - 2018, USD MILLION

TABLE 20 LAMEA TORQUE SENSOR MARKET BY APPLICATION, 2019 - 2025, USD



MILLION

TABLE 21 LAMEA AUTOMOTIVE TORQUE SENSOR MARKET BY COUNTRY, 2015 - 2018, USD MILLION

TABLE 22 LAMEA AUTOMOTIVE TORQUE SENSOR MARKET BY COUNTRY, 2019 - 2025, USD MILLION

TABLE 23 LAMEA TEST & MEASUREMENT TORQUE SENSOR MARKET BY COUNTRY, 2015 - 2018, USD MILLION

TABLE 24 LAMEA TEST & MEASUREMENT TORQUE SENSOR MARKET BY COUNTRY, 2019 - 2025, USD MILLION

TABLE 25 LAMEA AEROSPACE & DEFENSE TORQUE SENSOR MARKET BY COUNTRY, 2015 - 2018, USD MILLION

TABLE 26 LAMEA AEROSPACE & DEFENSE TORQUE SENSOR MARKET BY COUNTRY, 2019 - 2025, USD MILLION

TABLE 27 LAMEA INDUSTRIAL TORQUE SENSOR MARKET BY COUNTRY, 2015 - 2018, USD MILLION

TABLE 28 LAMEA INDUSTRIAL TORQUE SENSOR MARKET BY COUNTRY, 2019 - 2025, USD MILLION

TABLE 29 LAMEA OTHERS TORQUE SENSOR MARKET BY COUNTRY, 2015 - 2018, USD MILLION

TABLE 30 LAMEA OTHERS TORQUE SENSOR MARKET BY COUNTRY, 2019 - 2025, USD MILLION

TABLE 31 LAMEA TORQUE SENSOR MARKET BY COUNTRY, 2015 - 2018, USD MILLION

TABLE 32 LAMEA TORQUE SENSOR MARKET BY COUNTRY, 2019 - 2025, USD MILLION

TABLE 33 BRAZIL TORQUE SENSOR MARKET, 2015 - 2018, USD MILLION TABLE 34 BRAZIL TORQUE SENSOR MARKET, 2019 - 2025, USD MILLION TABLE 35 BRAZIL TORQUE SENSOR MARKET BY TYPE, 2015 - 2018, USD MILLION

TABLE 36 BRAZIL TORQUE SENSOR MARKET BY TYPE, 2019 - 2025, USD MILLION

TABLE 37 BRAZIL TORQUE SENSOR MARKET BY TECHNOLOGY, 2015 - 2018, USD MILLION

TABLE 38 BRAZIL TORQUE SENSOR MARKET BY TECHNOLOGY, 2019 - 2025, USD MILLION

TABLE 39 BRAZIL TORQUE SENSOR MARKET BY APPLICATION, 2015 - 2018, USD MILLION

TABLE 40 BRAZIL TORQUE SENSOR MARKET BY APPLICATION, 2019 - 2025, USD MILLION



TABLE 41 ARGENTINA TORQUE SENSOR MARKET, 2015 - 2018, USD MILLION TABLE 42 ARGENTINA TORQUE SENSOR MARKET, 2019 - 2025, USD MILLION TABLE 43 ARGENTINA TORQUE SENSOR MARKET BY TYPE, 2015 - 2018, USD MILLION

TABLE 44 ARGENTINA TORQUE SENSOR MARKET BY TYPE, 2019 - 2025, USD MILLION

TABLE 45 ARGENTINA TORQUE SENSOR MARKET BY TECHNOLOGY, 2015 - 2018, USD MILLION

TABLE 46 ARGENTINA TORQUE SENSOR MARKET BY TECHNOLOGY, 2019 - 2025, USD MILLION

TABLE 47 ARGENTINA TORQUE SENSOR MARKET BY APPLICATION, 2015 - 2018, USD MILLION

TABLE 48 ARGENTINA TORQUE SENSOR MARKET BY APPLICATION, 2019 - 2025, USD MILLION

TABLE 49 UAE TORQUE SENSOR MARKET, 2015 - 2018, USD MILLION

TABLE 50 UAE TORQUE SENSOR MARKET, 2019 - 2025, USD MILLION

TABLE 51 UAE TORQUE SENSOR MARKET BY TYPE, 2015 - 2018, USD MILLION

TABLE 52 UAE TORQUE SENSOR MARKET BY TYPE, 2019 - 2025, USD MILLION

TABLE 53 UAE TORQUE SENSOR MARKET BY TECHNOLOGY, 2015 - 2018, USD MILLION

TABLE 54 UAE TORQUE SENSOR MARKET BY TECHNOLOGY, 2019 - 2025, USD MILLION

TABLE 55 UAE TORQUE SENSOR MARKET BY APPLICATION, 2015 - 2018, USD MILLION

TABLE 56 UAE TORQUE SENSOR MARKET BY APPLICATION, 2019 - 2025, USD MILLION

TABLE 57 SAUDI ARABIA TORQUE SENSOR MARKET, 2015 - 2018, USD MILLION TABLE 58 SAUDI ARABIA TORQUE SENSOR MARKET, 2019 - 2025, USD MILLION TABLE 59 SAUDI ARABIA TORQUE SENSOR MARKET BY TYPE, 2015 - 2018, USD MILLION

TABLE 60 SAUDI ARABIA TORQUE SENSOR MARKET BY TYPE, 2019 - 2025, USD MILLION

TABLE 61 SAUDI ARABIA TORQUE SENSOR MARKET BY TECHNOLOGY, 2015 - 2018, USD MILLION

TABLE 62 SAUDI ARABIA TORQUE SENSOR MARKET BY TECHNOLOGY, 2019 - 2025, USD MILLION

TABLE 63 SAUDI ARABIA TORQUE SENSOR MARKET BY APPLICATION, 2015 - 2018, USD MILLION

TABLE 64 SAUDI ARABIA TORQUE SENSOR MARKET BY APPLICATION, 2019 -



2025, USD MILLION

TABLE 65 SOUTH AFRICA TORQUE SENSOR MARKET, 2015 - 2018, USD MILLION TABLE 66 SOUTH AFRICA TORQUE SENSOR MARKET, 2019 - 2025, USD MILLION TABLE 67 SOUTH AFRICA TORQUE SENSOR MARKET BY TYPE, 2015 - 2018, USD MILLION

TABLE 68 SOUTH AFRICA TORQUE SENSOR MARKET BY TYPE, 2019 - 2025, USD MILLION

TABLE 69 SOUTH AFRICA TORQUE SENSOR MARKET BY TECHNOLOGY, 2015 - 2018, USD MILLION

TABLE 70 SOUTH AFRICA TORQUE SENSOR MARKET BY TECHNOLOGY, 2019 - 2025, USD MILLION

TABLE 71 SOUTH AFRICA TORQUE SENSOR MARKET BY APPLICATION, 2015 - 2018, USD MILLION

TABLE 72 SOUTH AFRICA TORQUE SENSOR MARKET BY APPLICATION, 2019 - 2025, USD MILLION

TABLE 73 NIGERIA TORQUE SENSOR MARKET, 2015 - 2018, USD MILLION TABLE 74 NIGERIA TORQUE SENSOR MARKET, 2019 - 2025, USD MILLION TABLE 75 NIGERIA TORQUE SENSOR MARKET BY TYPE, 2015 - 2018, USD MILLION

TABLE 76 NIGERIA TORQUE SENSOR MARKET BY TYPE, 2019 - 2025, USD MILLION

TABLE 77 NIGERIA TORQUE SENSOR MARKET BY TECHNOLOGY, 2015 - 2018, USD MILLION

TABLE 78 NIGERIA TORQUE SENSOR MARKET BY TECHNOLOGY, 2019 - 2025, USD MILLION

TABLE 79 NIGERIA TORQUE SENSOR MARKET BY APPLICATION, 2015 - 2018, USD MILLION

TABLE 80 NIGERIA TORQUE SENSOR MARKET BY APPLICATION, 2019 - 2025, USD MILLION

TABLE 81 REST OF LAMEA TORQUE SENSOR MARKET, 2015 - 2018, USD MILLION

TABLE 82 REST OF LAMEA TORQUE SENSOR MARKET, 2019 - 2025, USD MILLION

TABLE 83 REST OF LAMEA TORQUE SENSOR MARKET BY TYPE, 2015 - 2018, USD MILLION

TABLE 84 REST OF LAMEA TORQUE SENSOR MARKET BY TYPE, 2019 - 2025, USD MILLION

TABLE 85 REST OF LAMEA TORQUE SENSOR MARKET BY TECHNOLOGY, 2015 - 2018, USD MILLION



TABLE 86 REST OF LAMEA TORQUE SENSOR MARKET BY TECHNOLOGY, 2019 - 2025, USD MILLION

TABLE 87 REST OF LAMEA TORQUE SENSOR MARKET BY APPLICATION, 2015 - 2018, USD MILLION

TABLE 88 REST OF LAMEA TORQUE SENSOR MARKET BY APPLICATION, 2019 - 2025, USD MILLION

TABLE 89 KEY INFORMATION – HONEYWELL INTERNATIONAL, INC.

TABLE 90 KEY INFORMATION - ABB GROUP

TABLE 91 KEY INFORMATION - INFINEON TECHNOLOGIES AG

TABLE 92 KEY INFORMATION - MTS SYSTEMS CORPORATION

TABLE 93 KEY INFORMATION - SNAP-ON, INC.

TABLE 94 KEY INFORMATION – CRANE ELECTRONICS, LTD.

TABLE 95 KEY INFORMATION - FUTEK ADVANCED SENSOR TECHNOLOGY, INC.

TABLE 96 KEY INFORMATION – APPLIED MEASUREMENTS LTD.

TABLE 97 KEY INFORMATION – KISTLER GROUP

TABLE 98 KEY INFORMATION - MAGCANICA, INC.



List Of Figures

LIST OF FIGURES

FIG 1 METHODOLOGY FOR THE RESEARCH

FIG 2 SWOT ANALYSIS: HONEYWELL INTERNATIONAL, INC.

FIG 3 RECENT STRATEGIES AND DEVELOPMENTS: ABB GROUP

FIG 4 SWOT ANALYSIS: ABB GROUP

FIG 5 SWOT ANALYSIS: INFINEON TECHNOLOGIES AG

FIG 6 SWOT ANALYSIS: MTS SYSTEMS CORPORATION

FIG 7 RECENT STRATEGIES AND DEVELOPMENTS: KISTLER GROUP



I would like to order

Product name: LAMEA Torque Sensor Market By Type (Rotary Torque Sensors and Reaction Torque

Sensors) By Technology (Strain Gauge, Magnetoelastic, Surface Acoustic Wave and Others) By Application (Automotive, Test & Measurement, Aerospace & Defense, Industrial and Others) By Country, Industry Analysis and Forecast, 2019 - 2025

Product link: https://marketpublishers.com/r/L0CC0E03A2B1EN.html

Price: US\$ 1,500.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

Payment

First name:

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/L0CC0E03A2B1EN.html

To pay by Wire Transfer, please, fill in your contact details in the form below:

Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at https://marketpublishers.com/docs/terms.html



To place an order via fax simply print this form, fill in the information below and fax the completed form to $+44\ 20\ 7900\ 3970$