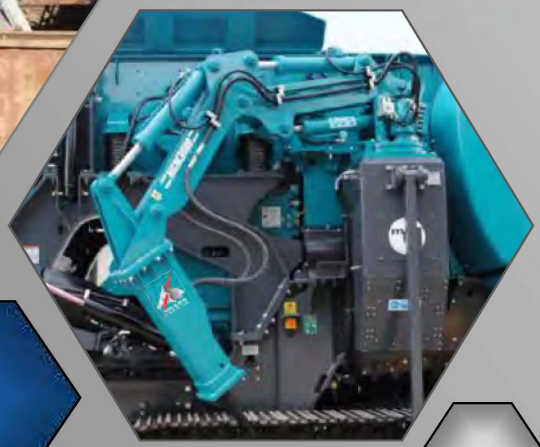
OKADA AMERICA

PEDESTAL ROCK BREAKER BOOM SYSTEMS



COMPANY OVERVIEW

Okada America Inc. personnel have more than 50 years of consulting with the mining and quarrying sectors. Add MQ's 25 years of quality, manufacturing experience. Driven by the challenges our customer's face we have built our reputations on offering strong, durable and safe products designed, manufactured and positioned to work reliably in the toughest of environments. The ethos of our businesses is based on maintaining an innovate workplace which strives to maintain an unparalleled level of expertise and consistency across our products, while maintaining and nurturing close and long term relationships with our customers.

STATE OF THE ART FACILITIES

MQ operates a full manufacturing facilities which boasts state of the art engineering processes and has strict quality management systems in place. From the initial design stage; through cutting steel, welding, precision machining, assembly, and testing, everything is carried out in seamless fashion within our factory. This means our customers benefit from more efficient design and manufacturing processes, and a much higher quality finished product. Innovation combined with years of industry experience has enabled us to engineer and specify products that utilize the most advanced technologies available, yet are incredibly user friendly.

GLOBAL NETWORK

Today Okada America is represented in North America, Mexico, Central America, and the Caribbean by a network of equipment dealers. Okada Aiyon (Corporate owner) is now represented on four additional continents with a global dealer network. Our customers know they can rely on us to help improve their operational efficiency, reduce risk and increase profitability. It is our commitment to quality, safety standards and customer satisfaction that has positioned us as world leaders in attachments for the construction, demolition, quarrying, mining & recycling industries.

QUALITY ASSURED

The Okada is recognized as a symbols of high quality products worldwide. Our global commitment to outstanding business and manufacturing performance, productivity and customer satisfaction is evidenced through Okada's 86 plus years of global business success and McQuaid's 25 plus years of success in achieving two ISO standards – certifications ISO 9001 and ISO 3834. It is our mutual, continual improvement efforts and investment in manufacturing processes, equipment and our people which means we are able to meet the challenges of worldwide industry.

SELECTING A ROCK BREAKER BOOM SYSTEM

A boom system, when specified correctly, is a valued component within an aggregate production plant or mining operation. The boom system will aid in increasing production, reduce down time, and increase safety.

The core factors that determines a functional boom system are: the type of crushing plant, the tonnage capacity of the plant, and the size and hardness of materials being processed.

KEY COMPONENTS OF A BOOM SYSTEM

- Pedestal boom
- Hydraulic breaker
- Hydraulic power unit
- Operating controls
- Support structure

SELECTING EQUIPMENT

To fully understand requirements for the supply of a rock breaker boom system the following technical parameters need taken into consideration:

Type of crushing operation
Material tonnage per hour throughput (TPH)
Type and hardness of material
The size of boulders/ over-size
Work area, proposed boom coverage
Proposed pedestal mount in relation to the work area
The size of hydraulic breaker required to suit the application
Proposed hours of boom operation per shift
Number of shifts per working day
Location: surface or underground
Housed within building or exposed to the elements
Climate and altitude at site

ROCK BREAKER BOOM SYSTEM BY APPLICATION

Our experienced team is available to consult with, advise and offer technical support to assist in selecting the boom system to best meet the technical requirements of your application.

They endeavor to understand production requirements, and specifying equipment that will increase material production and offer personnel safety at site.

SYSTEM APPLICATION OVERVIEW


Mobile Crushers
1


Jaw & Impactor Crushers
2


Grizzly
3


Gyratory Crushers
4

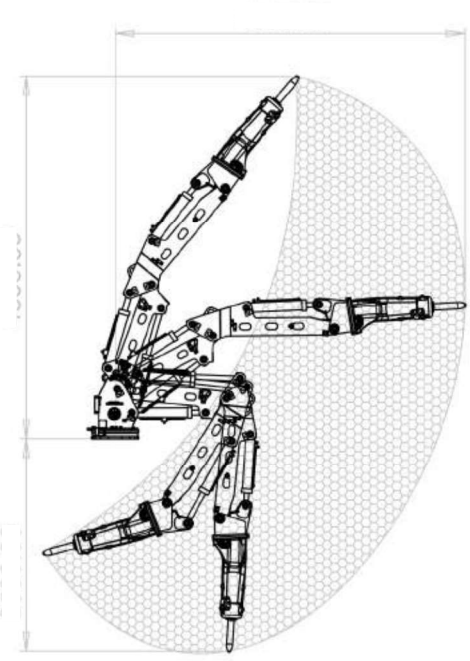
MODEL	APPLICATION				NORMAL MAX. HORIXONTAL REACH	HORIXONTAL REACH	VERTICAL REACH	HYDRAULIC BREAKER (heaviest)	Power Pack
	Mobile Crushers	Jaw & Impactor Crushers	Grizzly	Gyratory Crushers					
	1	2	3	4	FT (M)	FT (M)	FT (M)		
ORB20	o				6.5 (2.0)	10.6 (3.2)	6.5 (2.0)	ORV800SH (850ft-lb class)	P22-30
ORB30	o				9.2 (2.8)	13.8 (4.2)	9.5 (2.9)	ORV800SH (850ft-lb class)	P22-30
ORB40	o	o			9.8 (3.0)	15.1 (4.6)	8.2 (2.5)	ORV800SH (850ft-lb class)	P22-30
ORB42	o	o	o		13.5 (4.1)	19.7 (6.0)	13.8 (4.2)	ORV2500H (2,500 ft-lb class)	P22-45
ORB42S	o	o	o		12.5 (3.8)	25.6 (7.8)	13.8 (4.2)	ORV2500H (2,500 ft-lb class)	P22-37
ORB42SX		o	o		17.7 (5.4)	24.0 (7.3)	19.4 (5.9)	ORV1500H (1,500 ft-lb class)	P22-37
ORB52S		o	o		17.7 (5.4)	25.6 (7.8)	17.1 (5.2)	ORV4000H (4,000 ft-lb class)	P22-55
ORB42X		o	o		18.7 (5.7)	23.3 (7.1)	18.3 (5.6)	ORV1500H (1,500 ft-lb class)	P22-37
ORB52HD		o	o		19.4 (5.9)	25.6 (7.8)	16.1 (4.9)	ORV5000H (5,000 ft-lb class)	P30-55
ORB60		o	o		21.0 (6.4)	28.5 (8.7)	20.7 (6.3)	ORV3000H (3,000 ft-lb class)	P30-55
ORB75		o	o		24.9 (7.6)	29.5 (9.0)	22.3 (6.8)	ORV2500H (2,500 ft-lb class)	P30-45
ORB90			o	o	28.9 (8.8)	35.4 (10.8)	25.3 (7.7)	ORV5000H (5,000 ft-lb class)	P30-55
ORB110			o	o	32.8 (10.0)	41.3 (12.6)	29.5 (9.0)	ORV5000H (5,000 ft-lb class)	P30-55
ORB110HD			o	o	32.8 (10.0)	41.3 (12.6)	29.5 (9.0)	ORV7500H (7,500 ft-lb class)	P30-55
ORB120S			o	o	41.0 (12.5)	49.2 (15.0)	30.2 (9.2)	ORV4000H (4,000 ft-lb class)	P30-55

Note: A heavy-duty option also exists for the ORB60 and ORB75 to allow each to operate one class size heavier breaker.

MOBILE BOOM SYSTEMS

Our compact booms are typically used on portable crushing plants and are fitted directly to the structure of the mobile crusher. These multi-purpose boom systems have been shown to aid in increasing productivity by up to 30% by removing bridged rock and breaking oversize in the hopper without the need to stop a plant or reposition equipment. Featuring a low-profile design and low transportation height, these heavy duty, rock breaker booms are stable and easy to install as they travel within transport dimensions.

RANGE OF MOTION



FEATURES:

- Compact design to integrate onto the mobile crusher
- Parks within the transport dimensions
- Built to exact tolerances from premium materials
- Turntable mounted base
- Heat treated conical pins
- Low height/ width design
- Optimal space usage
- Stable and easy to install

BENEFITS:

- Reduce down time and increase productivity
- Enhance safety
- Eliminate bridging and maintain an uninterrupted flow of material through the crusher
- Compact and multi-purpose
- Can be easily transported yet is still large enough to handle the raking and breaking
- Hand held remote control allows the operator flexibility to operate the boom from a safe distance and viewpoint
- Maximum productivity with maximum cost efficiency

We fit holding valves to all booms as a standard. That is the main lift and the jib.
The hammer tilt and the slew cylinders generally do not need the load hold / anti-burst valves.

SPECIFICATIONS

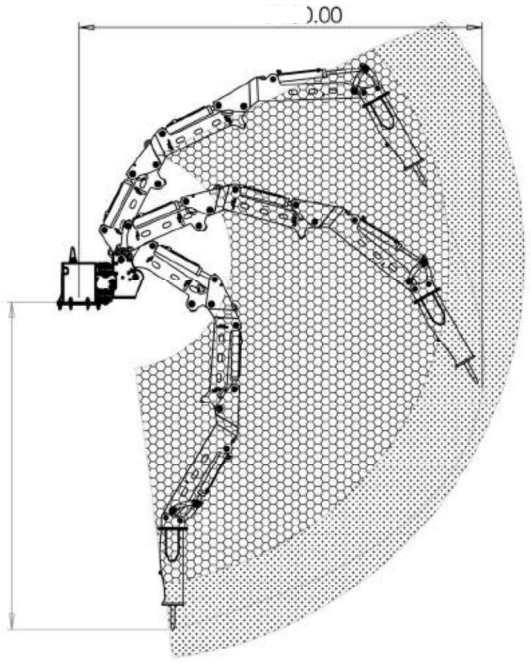
MODEL	NOMINAL HORIZONTAL REACH FT (M)	HORIZONTAL REACH FT (M)	VERTICAL REACH FT (M)	BOOM WEIGHT LB (KG)	ROTATION
ORB20	6.5 (2.0	10.6 (3.2)	6.5 (2.0)	1,962 (890)	320°
ORB30	9.2 (2.8)	13.8 (4.2)	9.5 (2.9)	2,293 (1040)	320°
ORB40	9.8 (3.0)	15.1 (4.6)	8.2 (2.5)	2,426 (1100)	320°
ORB42S	12.5 (3.8)	26.5 (7.8)	13.8 (4.2)	4,631 (2100)	320°

MID RANGE BOOM SYSTEMS

Our medium duty range of booms are typically mounted over the mouth of a primary crusher. The boom system enables the breaker to reach into the mouth of the crusher, reducing oversized boulders as well as clearing any blockages in the hopper.

The design of our mid-range booms optimally combines light weight with high capacity. The larger footprint of the boom pedestal effectively optimizes the stress distribution and foundation structures.

RANGE OF MOTION



FEATURES:

- Optimally combines light weight and a high capacity
- User friendly remote controls allow for smooth and agile operation
- Shock absorbing pedestal mounting
- Heat treated conical pins
- Breaker anti-lunge cushioning within the hydraulic system
- Unlimited visibility from the cabin or operator stand
- Simple assembly, safe, quick and easy operation

BENEFITS:

- Long term plant production is vastly improved
- Bridging is eliminated, maintaining uninterrupted flow of material through the crusher
- Downtime due to build ups is considerably reduced, ensuring a steady flow of material
- Payback time on the investment is usually very short due to the vast economic benefit as a result of increased productivity
- The safest way to clear the crusher cavity

We fit holding valves to all booms as a standard. That is the main lift and the jib. The hammer tilt and the slew cylinders generally do not need the load hold / anti-burst valves.

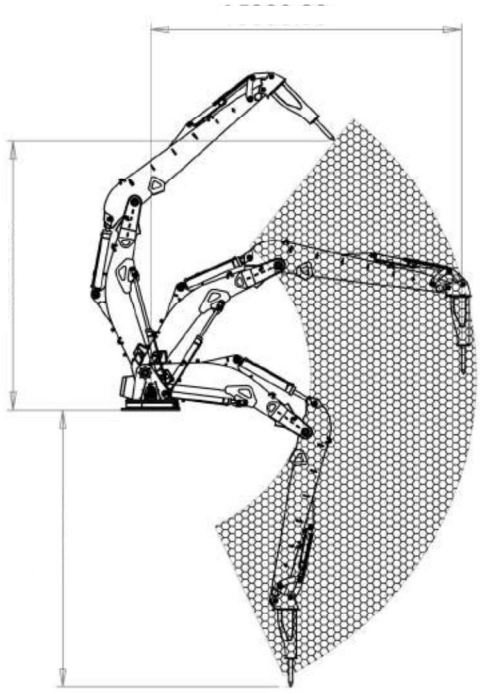
SPECIFICATIONS

MODEL	NOMINAL HORIZONTAL REACH FT (M)	MAXIMUM ORIZONTAL REACH FT (M)	VERTICAL REACH FT (M)	BOOM WEIGHT FT (M)	ROTATION
ORB42S	12.5 (3.8)	25.6 (7.8)	13.8 (4.)2	4,631 (2100)	320°
ORB42	13.5 (4.1)	19.7 (6.0)	13.8 (4.2)	5,072 (2300)	180°
ORB42SX	17.7 (5.4)	24.0 (7.3)	19.4 (5.9)	5,744 (2605)	320°
ORB42X	18.7 (5.7)	23.3 (7.1)	18.3 (5.6)	6,108 (2770)	180°

HEAVY DUTY BOOM SYSTEMS

Our heavy duty range of booms are suitable for permanent rock breaking in arduous applications.
A pedestal rock breaker boom is the safest way to manage arching/bridging, bottle-necks,and oversized materials. Our rock breaker boom systems enhance the safety, productivity and profitability of crushing applications in mines and quarries.

RANGE OF MOTION



FEATURES:

- Utilizes the maximum performance of the hydraulic hammer
- Sophisticated control system meets safety and reliability requirements and at the same time is user-friendly
- Made from high strength steel alloys, guaranteeing longevity and ensuring resistance to torsion and buckling
- Long lasting, heavy-duty hydraulic cylinders maximise productivity for longer periods
- Shock absorbing pedestal mounting increases stability

BENEFITS:

- Keep your plant running at maximum productivity
- Quickly eliminate crusher blockages and provide smooth material flow
- Built to last for years in even the most arduous working environments
- Ensures high levels of safety of the operators work
- Vast economic impact as a result of improved productivity

We fit holding valves to all booms as a standard. That is the main lift and the jib.
The hammer tilt and the slew cylinders generally do not need the load hold / anti-burst valves.

SPECIFICATIONS

MODEL	NOMINAL HORIZONTAL REACH FT (M)	HORIZONTAL REACH FT (M)	VERTICAL REACH FT (M)	BOOM WEIGHT LB (KG)	ROTATION
ORB52S	17.4 (5.4)	25.6 (7.8)	17.1 (5.2)	12,128 (5500)	320°
ORB52HD	19.4 (5.9)	25.6 (7.8)	16.1 (4.9)	17,640 (8000)	180°
ORB60	21.0 (6.4)	28.5 (8.7)	20.7 (6.3)	15,986 (7250)	180°
ORB75	24.9 (7.6)	29.5 (9.0)	22.3 (6.8)	18,743 (8500)	180°
ORB90	28.9 (8.8)	35.4 (10.8)	25.3 (7.7)	23,153 (10500)	180°
ORB110	32.9 (10 .0)	41.3 (12.6)	29.5 (9 .0)	25,358 (11500)	170°
ORB110HD	32.9 (10 .0)	41.3 (12.6)	29.5 (9 .0)	25,358 (11500)	170°
ORB120S	41.0 (12.5)	49.2 (15.0)	30.2 (9.2)	51,818 (23500)	320°

POWER PACK UNITS

We offer a range of Submersed, Non—Submersed and Load Sensing Power Units for the purpose of operating both the rock breaker boom and hydraulic breaker. A hydraulic power unit is supplied with all static pedestal boom systems. All of our power units are designed for maximum performance, reliability, simple and efficient maintenance.

Our power units are selected to suit the chosen breaker and to ensure maximum productivity and performance of the complete boom system package. As standard, all our boom systems destined for static applications are supplied with a high specification hydraulic power unit. The unit comprises a high efficiency electric motor, a large displacement hydraulic pump and a high capacity reservoir. An oil tank heater and oil cooler are also offered depending on climate and region requirements.

Load Sensing Power Unit

Submersed Power Unit

Non– Submersed Power Unit

SPECIFICATIONS

POWER PACK UNIT SPECIFICATIONS							
		OPP22	OPP37	OPP37	OPP45	OPP55LS	OPP75LS
MOTOR	KW	22	30	37	45	55	75
	HP	30	40	50	60	75	100
MOTOR RUNNING SPEED	RPM	1450	1450	1450	1450	1450	1450
PUMP TYPE		Single	Single	Tandem	Tandem	Tandem	Tandem
PUMP	CC	48	62	75 + 48	75 + 48	96 + 48	122 + 48
PUMP FLOW RATE	LPM	60	84	105 + 42	100 + 42	120 + 42	170 + 60
	GPM (US)	16	22	27 + 11	26 + 11	32 + 11	45 + 16
PUMP WORKING PRESSURE	BAR	180	200	200	200	200	200
	PSI	2650	3000	3000	3000	3000	3000
MAX OPERATING PRESSURE	BAR	210	220	220	220	220	220
	PSI	3100	3200	3200	3200	3200	3200
HYDRAULIC RESERVOIR CAPACITY	LITRES	150	200	350	500	500	500
	GAL (US)	40	53	92	132	132	132

HYRAULIC ROCK BREAKERS

We offer a full range of hydraulic breakers which complement our boom systems. The power to weight ratio of the OKADA ORV Series of hydraulic breakers provides superior efficiency and performance. Designed for improved hydraulic efficiency and safety, our powerful, reliable and durable breakers will significantly increase the productivity of your work.

FEATURES:

- Energy of piston stroke is accumulated due to charged nitrogen gas
- Built-in valve is easily accessed for maintenance
- Installation designed to be easy and safe for the operator
- Housing design protects against abbrasion, dust and debris
- Sound attenuated

BENEFITS:

- Long service life due to advanced heat treatment process
- Pistons are manufactured using materials proven in intensity, anti-wear, heat resistant, anti-impact etc.
- High efficiency & performance
- Extremely maintenance-friendly

	MODEL	800SH	1100H	1500H	2500H	3000H	4000H	5000H	7500H
SPECIFICATION									
Carrier Class	1000 lb	10 - 18	10 - 18	13 - 22	22 - 34	28 - 40	38 - 54	44 - 66	60 - 92
	m ton	4.5 - 8	4.5 - 8	6 - 10	10 - 15	13 - 18	17 - 25	20 - 30	27 - 42
Impact Energy Class	ft lb	850	1100	1500	2500	3000	4000	5000	7500
	Joules	1153	1492	2034	3390	4068	5424	6780	10170
Operating Weight	lb	730	1118	1667	1990	2550	3500	4400	5950
	kg	331	507	756	902	1156	1587	1995	2698
Unit Working Length	inch	63	75	83	89	91	103	114	124
	cm	160	190	212	226	231	262	290	315
Tool Diameter	inch	2.95	3.15	3.54	4.1	4.5	5.3	5.7	6.1
	mm	75	80	90	104	114	135	145	155
Tool Working Length	inch	16.2	19.5	22.6	23.4	24	28.9	28.2	30.2
	mm	411	496	575	594	610	734	716	767
Frequency	L Mode bpm	380-900	400-800	350-700	350-550	320-550	320-480	270-400	230-400
	S Mode bpm	n/a	600-1100	490-1000	600-900	400-470	400-600	330-500	270-470
Auto Stop		o	-	-	o	o	o	o	o
85 db (A) Level Distance	ft	35 - 58	57 - 95	65 - 91	75 - 105	78 - 109	83 - 116	98 - 137	119 - 167
	m	11 - 18	17 - 19	20 - 28	23 - 32	24 - 33	25 - 35	30 - 42	36 - 51
ENERGY									
Mechanical Energy	hp	17 - 33	14 - 37	15 - 38	35 - 65	45 - 78	62 - 98	73 - 117	98 - 133
	kW	13 - 25	10 - 28	11 - 28	26 - 48	33 - 58	47 - 73	55 - 87	73 - 99
Mechanical Energy Average	hp	25	25.5	26.5	50	61.5	80	95	115.5
	kW	19	19	20	37	46	60	71	86
HYDRAULICS									
Oil Flow Range	gpm	14 - 20	15 - 23	16 - 26	25 - 35	32 - 42	40 - 53	47 - 63	63 - 72
	lpm	64 - 83	56 - 87	60 - 98	83 - 117	110 - 132	114 - 132	163- 200	178 - 238
Operating Pressure	psi	1740-2400	1990-2418		2030 - 2700		2275 - 2700		
	bar	120 - 165	137 - 167		140 - 180		157 - 180		

ACCESSORIES

AUTO-LUBRICATION SYSTEMS

For heavy duty booms working continuously we would recommend the Auto Lubrication System

REMOTE CONTROL

The boom can be remotely controlled using a hand held remote control unit (radio / tetered). This allows the operator more flexibility to operate the boom from a safe distance.

QUICK HITCH

Our quick couplers and hitches will improve the productivity, flexibility and potential of your machine for even the most demanding jobs.

OPERATOR'S CABIN

We offer both a single or a double operator's cabin. Optional heating, air conditioning, and electric panel available.

OPERATOR'S SEAT

The ergonomic seat is designed for operators comfort. this seat can be placed in an existing control room or cabin.

MANUAL CONTROLS

The boom can be operated using valve bank controls mounted into a operators control stand, or operators seat.

HYDRAULIC BREAKER

We offer our ORV Series of hydraulic hammers that are fully compatible to operate on our boom systems.

ANCHOR BASE

Steel support to add into the foundations for anchoring heavy load bearing structures.

SUPPORT TOWER

A steel support tower can be used to support heavy equipment. Designed to ensure structural integrity and to gain maximum capacity, they may feature a walkway and ladder.

From the initial inquiry you make to Okada America, right through to when you receive your system, our dedicated team will be with you every step of the way. We take great pride in our customer service, providing world class support, delivering 100% customer satisfaction. Our committed customer support team is equipped with the experience and thorough industry and product knowledge to help assist you, whatever the nature of your inquiry.

Whether you are looking to install or commission a single machine or multiple pieces of equipment, our technicians are there to support you at every step of the process. From feasibility and project management to system configuration and training we can handle installation review, start-up and and commissioning of equipment. We offer our customers a complete design to commissioning service.

SPARE PARTS

At Okada America Inc. we know the importance of quick turnarounds when you have a breakdown on site. Manufacturing insures we always have a supply of spare parts, so if the need should arise; you can keep production on schedule and minimize costly, unscheduled downtime by getting them when you need them.

When it comes to parts, our focus is on quality, service and value. Our spare parts keep your machinery working at peak performance and maximize its resale value. You can be assured that our spare parts have superior durability and ease of fit due to the raw materials and the high quality precision manufacturing.

AFTERCARE

Receiving your new Pedestal Breaker System is just the beginning of your relationship with us. Our comprehensive after-sales product support reviews installation, and performs system start-up and commissioning of booms, operator and maintenance training, technical trouble shooting and spare parts requirements. We offer the highest level of customer care. If a problem should occur, we stay in contact with each customer until their situation is resolved.

We understand that time is money, and that even with regular evaluations and mechanical audits of your equipment, unanticipated downtime can occur. Our comprehensive service ensures that our customers get the professional support and technical advice they need, when they need it.

INSTALLATION

We can supervise or review installation and perform start-up and commissioning of our boom systems for our customers. From the primary planning stage, organizing equipment and manpower, to implementing the project on-site and carrying out follow up meetings with your staff, our team can oversee each step of the process to ensure ease of installation. We will keep in close contact with our customers throughout the process to ensure that everyone is fully informed in terms of scope of supply and scheduling. After installing any new boom system, we will conduct rigorous on-site testing to ensure that the system is working to maximum productivity.

When your equipment is installed and running, we remain accessible and are available to support your needs. We can deliver employee operator training programs based on our extensive knowledge and expertise, aligned with safety and maintenance training in accordance with best practices.

OKADA®

PEDESTAL ROCK BREAKER SYSTEMS

Okada America Inc.

Ohio - Oregon - Texas USA