

Japanese Clock Development (Note: Developments could take 50 years to spread from the Centres of Development (Nagasaki, Kyoto, Osaka and others) to Provincial Clock Makers

16th Century									17th Century									18th Century									19th Century																										
1540	1550	1560	1570	1580	1590	1600	1610	1620	1630	1640	1650	1660	1670	1680	1690	1700	1710	1720	1730	1740	1750	1760	1770	1780	1790	1800	1810	1820	1830	1840	1850	1860	1870																				
Periods of Japanese Clock Development									1620>									Wadokei Early Period									Wadokei Mid Period									Wadokei Late Period									<1873								
Major Wadokei Events																																																					
Ownership >																																																					
Shogun and Daimyo ownership only																																																					
Shogun, Daimyo, Samurai and Nobleman ownership																																																					
From 1830 wide distribution																																																					
1591 Four Japanese envoys believed to have returned from Europe with clock(s) >																																																					
1569 Obanaga Oda requested to see clock >																																																					
1611 Ieyasu Tokugawa (shogun) presented with clock from Spanish >																																																					
1644 First watch presented >																																																					
1648 Gifts of watches and clocks start >																																																					
1651 Netsuke-Clock presented to Shogun >																																																					
1681 Earliest Pictorial representation >																																																					
1705 Earliest record netsuke watch >																																																					
1718 to 1723 Tokugawa Yoshime seeks repair watch >>>>																																																					
1719 & 1732 requests for Dutch assistance >>>>>>>>>>																																																					
1734-36 Dutch watchmakers arrive with several watches >																																																					
1797 Hosakawa HANZO, book Karakuri Zui >																																																					
Asada made Pendulum Clock >																																																					
Masakichi of Makitaka, made finger-Ring Watch >																																																					
Hisashige Tanaka made Mannen-dokei >																																																					
No clockmakers in Edo. >																																																					
Nagasaki centre of clockmaking. >																																																					
1716 Wakan Sansai Zue (encyclopedia) refers yagura dokei, futokoro-dokei (pocket watch), pillar clocks with weights >																																																					
> 1541 St Francis Xavier gifted First clock to Ouchi Yoshitaka																																																					
Priests teach clockmaking																																																					
TSUDA Sukezaemon Masayuki #1																																																					
Jap's Overseas Forbidden Return																																																					
Foreigners (except Dutch) excluded																																																					
Golden Age of Wadokei																																																					
Clock Types																																																					
European 12 hour Repros																																																					
European Reproductions																																																					
Kake-Dokei (Wall Hanging Lantern Clock) >>>																																																					
Hashira-Dokei (Lantern Clock on Wall Bracket) >>>																																																					
Yagura-Dokei (Lantern Clock on Pyramid Base) >>>																																																					
Dai-Dokei (Lantern Clock on Four-Legged Stand) >>>																																																					
1754 > Makura Dokei et.al.>>>																																																					
Shaku-Dokei with Movable Hour Markers >>>																																																					
Shaku-Dokei with Warikoma Dial >>>																																																					
Shaku Dokei with Namagata Dial >>>																																																					
Shaku Dokei with 2 x Seven Setuita Dials >>>																																																					
Inro-Dokei >>>																																																					
Frame																																																					
Iron only >>>																																																					
Brass used for case sides >>>																																																					
Iron and Brass Movements >>>																																																					
Brass only >>>																																																					
Escapement																																																					
Verge and Single Foliot																																																					
Verge and Single Foliot with Waricoma Dial																																																					
1773 > Double Foliot																																																					
Verge and Pendulum																																																					
Verge and Balance Wheel																																																					
Foliot Design																																																					
x3 branches per arm																																																					
(Small Claw) (Small Claw) (Large Claw)																																																					
Power Source																																																					
Weight Driven																																																					
1750 > Main Spring Driven																																																					
Dial																																																					
Numerals engraved on Front Plate / Revolving Hand >																																																					
Separate Fixed Zodiac Dial																																																					
Zodiac + 4-9 Numbers																																																					
Separate Fixed Hour Plate commonly black >																																																					
Rotating Dial >																																																					
Brass and Silvered Dials >																																																					
1724 > Waricoma Dial Lantern Clock																																																					
Waricoma Dial Makura Dokei Clock																																																					
Bell																																																					
Deep Domed Bell >>>																																																					
Shallow Domed Bell >>>																																																					
Shallow Straight Sided Bell >>>																																																					
Bell Nut																																																					
Butterfly with 2 Wings >>>																																																					
Butterfly with 3 Wings >>>																																																					
Knurled >>>																																																					
Pear Drop >>>																																																					
Additional Features																																																					
Alarm >>>																																																					
Date Aperture(s) >>>																																																					