

ภาคผนวก ค

ค่าคะแนนท่าทางการทำงาน (RULA) ของผู้ถูกทดลองคนที่ 1-5 ก่อนการปรับปรุงสภาพการทำงาน

RULA Employee Assessment Worksheet

Complete this worksheet following the step-by-step procedure below. Keep a copy in the employee's personnel folder for future reference.

A. Arm & Wrist Analysis

Step 1: Locate Upper Arm Position
If shoulder is relaxed +1; If arm is abducted +2; If arm is extended or flexed +3; If arm is rotated +4

Step 2: Locate Lower Arm Position
If forearm is pronated +1; If forearm is supinated +2; If forearm is neutral +3

Step 3: Adjust...
If wrist is bent from the midline +1; If wrist is twisted +2; If wrist is bent and twisted +3

Step 4: Wrist Twist
If wrist is bent and twisted +3

Step 5: Look-up Posture Score in Table A
Use values from steps 1, 2, 3 & 4 to locate Posture Score in Table A

Step 6: Add Muscle Use Score
If posture is static (i.e. held for longer than 1 minute) +1; If posture is dynamic (i.e. held for less than 1 minute) +2; If posture is static and dynamic (i.e. held for less than 1 minute and then static) +3

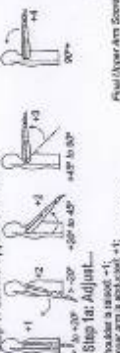
Step 7: Add Force/Lift Score
If load is less than 2 kg (4.4 lb) +1; If load is 2 to 5 kg (4.4 to 11 lb) +2; If load is 5 to 10 kg (11 to 22 lb) +3; If load is 10 to 15 kg (22 to 33 lb) +4; If load is 15 to 20 kg (33 to 44 lb) +5; If load is 20 to 25 kg (44 to 55 lb) +6; If load is 25 to 30 kg (55 to 66 lb) +7; If load is 30 to 35 kg (66 to 77 lb) +8; If load is 35 to 40 kg (77 to 88 lb) +9; If load is 40 to 45 kg (88 to 99 lb) +10; If load is 45 to 50 kg (99 to 110 lb) +11; If load is 50 to 55 kg (110 to 121 lb) +12; If load is 55 to 60 kg (121 to 132 lb) +13; If load is 60 to 65 kg (132 to 143 lb) +14; If load is 65 to 70 kg (143 to 154 lb) +15; If load is 70 to 75 kg (154 to 165 lb) +16; If load is 75 to 80 kg (165 to 176 lb) +17; If load is 80 to 85 kg (176 to 187 lb) +18; If load is 85 to 90 kg (187 to 198 lb) +19; If load is 90 to 95 kg (198 to 209 lb) +20; If load is 95 to 100 kg (209 to 220 lb) +21; If load is 100 to 105 kg (220 to 231 lb) +22; If load is 105 to 110 kg (231 to 242 lb) +23; If load is 110 to 115 kg (242 to 253 lb) +24; If load is 115 to 120 kg (253 to 264 lb) +25; If load is 120 to 125 kg (264 to 275 lb) +26; If load is 125 to 130 kg (275 to 286 lb) +27; If load is 130 to 135 kg (286 to 297 lb) +28; If load is 135 to 140 kg (297 to 308 lb) +29; If load is 140 to 145 kg (308 to 319 lb) +30; If load is 145 to 150 kg (319 to 330 lb) +31; If load is 150 to 155 kg (330 to 341 lb) +32; If load is 155 to 160 kg (341 to 352 lb) +33; If load is 160 to 165 kg (352 to 363 lb) +34; If load is 165 to 170 kg (363 to 374 lb) +35; If load is 170 to 175 kg (374 to 385 lb) +36; If load is 175 to 180 kg (385 to 396 lb) +37; If load is 180 to 185 kg (396 to 407 lb) +38; If load is 185 to 190 kg (407 to 418 lb) +39; If load is 190 to 195 kg (418 to 429 lb) +40; If load is 195 to 200 kg (429 to 440 lb) +41; If load is 200 to 205 kg (440 to 451 lb) +42; If load is 205 to 210 kg (451 to 462 lb) +43; If load is 210 to 215 kg (462 to 473 lb) +44; If load is 215 to 220 kg (473 to 484 lb) +45; If load is 220 to 225 kg (484 to 495 lb) +46; If load is 225 to 230 kg (495 to 506 lb) +47; If load is 230 to 235 kg (506 to 517 lb) +48; If load is 235 to 240 kg (517 to 528 lb) +49; If load is 240 to 245 kg (528 to 539 lb) +50; If load is 245 to 250 kg (539 to 550 lb) +51; If load is 250 to 255 kg (550 to 561 lb) +52; If load is 255 to 260 kg (561 to 572 lb) +53; If load is 260 to 265 kg (572 to 583 lb) +54; If load is 265 to 270 kg (583 to 594 lb) +55; If load is 270 to 275 kg (594 to 605 lb) +56; If load is 275 to 280 kg (605 to 616 lb) +57; If load is 280 to 285 kg (616 to 627 lb) +58; If load is 285 to 290 kg (627 to 638 lb) +59; If load is 290 to 295 kg (638 to 649 lb) +60; If load is 295 to 300 kg (649 to 660 lb) +61; If load is 300 to 305 kg (660 to 671 lb) +62; If load is 305 to 310 kg (671 to 682 lb) +63; If load is 310 to 315 kg (682 to 693 lb) +64; If load is 315 to 320 kg (693 to 704 lb) +65; If load is 320 to 325 kg (704 to 715 lb) +66; If load is 325 to 330 kg (715 to 726 lb) +67; If load is 330 to 335 kg (726 to 737 lb) +68; If load is 335 to 340 kg (737 to 748 lb) +69; If load is 340 to 345 kg (748 to 759 lb) +70; If load is 345 to 350 kg (759 to 770 lb) +71; If load is 350 to 355 kg (770 to 781 lb) +72; If load is 355 to 360 kg (781 to 792 lb) +73; If load is 360 to 365 kg (792 to 803 lb) +74; If load is 365 to 370 kg (803 to 814 lb) +75; If load is 370 to 375 kg (814 to 825 lb) +76; If load is 375 to 380 kg (825 to 836 lb) +77; If load is 380 to 385 kg (836 to 847 lb) +78; If load is 385 to 390 kg (847 to 858 lb) +79; If load is 390 to 395 kg (858 to 869 lb) +80; If load is 395 to 400 kg (869 to 880 lb) +81; If load is 400 to 405 kg (880 to 891 lb) +82; If load is 405 to 410 kg (891 to 902 lb) +83; If load is 410 to 415 kg (902 to 913 lb) +84; If load is 415 to 420 kg (913 to 924 lb) +85; If load is 420 to 425 kg (924 to 935 lb) +86; If load is 425 to 430 kg (935 to 946 lb) +87; If load is 430 to 435 kg (946 to 957 lb) +88; If load is 435 to 440 kg (957 to 968 lb) +89; If load is 440 to 445 kg (968 to 979 lb) +90; If load is 445 to 450 kg (979 to 990 lb) +91; If load is 450 to 455 kg (990 to 1001 lb) +92; If load is 455 to 460 kg (1001 to 1012 lb) +93; If load is 460 to 465 kg (1012 to 1023 lb) +94; If load is 465 to 470 kg (1023 to 1034 lb) +95; If load is 470 to 475 kg (1034 to 1045 lb) +96; If load is 475 to 480 kg (1045 to 1056 lb) +97; If load is 480 to 485 kg (1056 to 1067 lb) +98; If load is 485 to 490 kg (1067 to 1078 lb) +99; If load is 490 to 495 kg (1078 to 1089 lb) +100; If load is 495 to 500 kg (1089 to 1100 lb) +101; If load is 500 to 505 kg (1100 to 1111 lb) +102; If load is 505 to 510 kg (1111 to 1122 lb) +103; If load is 510 to 515 kg (1122 to 1133 lb) +104; If load is 515 to 520 kg (1133 to 1144 lb) +105; If load is 520 to 525 kg (1144 to 1155 lb) +106; If load is 525 to 530 kg (1155 to 1166 lb) +107; If load is 530 to 535 kg (1166 to 1177 lb) +108; If load is 535 to 540 kg (1177 to 1188 lb) +109; If load is 540 to 545 kg (1188 to 1199 lb) +110; If load is 545 to 550 kg (1199 to 1210 lb) +111; If load is 550 to 555 kg (1210 to 1221 lb) +112; If load is 555 to 560 kg (1221 to 1232 lb) +113; If load is 560 to 565 kg (1232 to 1243 lb) +114; If load is 565 to 570 kg (1243 to 1254 lb) +115; If load is 570 to 575 kg (1254 to 1265 lb) +116; If load is 575 to 580 kg (1265 to 1276 lb) +117; If load is 580 to 585 kg (1276 to 1287 lb) +118; If load is 585 to 590 kg (1287 to 1298 lb) +119; If load is 590 to 595 kg (1298 to 1309 lb) +120; If load is 595 to 600 kg (1309 to 1320 lb) +121; If load is 600 to 605 kg (1320 to 1331 lb) +122; If load is 605 to 610 kg (1331 to 1342 lb) +123; If load is 610 to 615 kg (1342 to 1353 lb) +124; If load is 615 to 620 kg (1353 to 1364 lb) +125; If load is 620 to 625 kg (1364 to 1375 lb) +126; If load is 625 to 630 kg (1375 to 1386 lb) +127; If load is 630 to 635 kg (1386 to 1397 lb) +128; If load is 635 to 640 kg (1397 to 1408 lb) +129; If load is 640 to 645 kg (1408 to 1419 lb) +130; If load is 645 to 650 kg (1419 to 1430 lb) +131; If load is 650 to 655 kg (1430 to 1441 lb) +132; If load is 655 to 660 kg (1441 to 1452 lb) +133; If load is 660 to 665 kg (1452 to 1463 lb) +134; If load is 665 to 670 kg (1463 to 1474 lb) +135; If load is 670 to 675 kg (1474 to 1485 lb) +136; If load is 675 to 680 kg (1485 to 1496 lb) +137; If load is 680 to 685 kg (1496 to 1507 lb) +138; If load is 685 to 690 kg (1507 to 1518 lb) +139; If load is 690 to 695 kg (1518 to 1529 lb) +140; If load is 695 to 700 kg (1529 to 1540 lb) +141; If load is 700 to 705 kg (1540 to 1551 lb) +142; If load is 705 to 710 kg (1551 to 1562 lb) +143; If load is 710 to 715 kg (1562 to 1573 lb) +144; If load is 715 to 720 kg (1573 to 1584 lb) +145; If load is 720 to 725 kg (1584 to 1595 lb) +146; If load is 725 to 730 kg (1595 to 1606 lb) +147; If load is 730 to 735 kg (1606 to 1617 lb) +148; If load is 735 to 740 kg (1617 to 1628 lb) +149; If load is 740 to 745 kg (1628 to 1639 lb) +150; If load is 745 to 750 kg (1639 to 1650 lb) +151; If load is 750 to 755 kg (1650 to 1661 lb) +152; If load is 755 to 760 kg (1661 to 1672 lb) +153; If load is 760 to 765 kg (1672 to 1683 lb) +154; If load is 765 to 770 kg (1683 to 1694 lb) +155; If load is 770 to 775 kg (1694 to 1705 lb) +156; If load is 775 to 780 kg (1705 to 1716 lb) +157; If load is 780 to 785 kg (1716 to 1727 lb) +158; If load is 785 to 790 kg (1727 to 1738 lb) +159; If load is 790 to 795 kg (1738 to 1749 lb) +160; If load is 795 to 800 kg (1749 to 1760 lb) +161; If load is 800 to 805 kg (1760 to 1771 lb) +162; If load is 805 to 810 kg (1771 to 1782 lb) +163; If load is 810 to 815 kg (1782 to 1793 lb) +164; If load is 815 to 820 kg (1793 to 1804 lb) +165; If load is 820 to 825 kg (1804 to 1815 lb) +166; If load is 825 to 830 kg (1815 to 1826 lb) +167; If load is 830 to 835 kg (1826 to 1837 lb) +168; If load is 835 to 840 kg (1837 to 1848 lb) +169; If load is 840 to 845 kg (1848 to 1859 lb) +170; If load is 845 to 850 kg (1859 to 1870 lb) +171; If load is 850 to 855 kg (1870 to 1881 lb) +172; If load is 855 to 860 kg (1881 to 1892 lb) +173; If load is 860 to 865 kg (1892 to 1903 lb) +174; If load is 865 to 870 kg (1903 to 1914 lb) +175; If load is 870 to 875 kg (1914 to 1925 lb) +176; If load is 875 to 880 kg (1925 to 1936 lb) +177; If load is 880 to 885 kg (1936 to 1947 lb) +178; If load is 885 to 890 kg (1947 to 1958 lb) +179; If load is 890 to 895 kg (1958 to 1969 lb) +180; If load is 895 to 900 kg (1969 to 1980 lb) +181; If load is 900 to 905 kg (1980 to 1991 lb) +182; If load is 905 to 910 kg (1991 to 2002 lb) +183; If load is 910 to 915 kg (2002 to 2013 lb) +184; If load is 915 to 920 kg (2013 to 2024 lb) +185; If load is 920 to 925 kg (2024 to 2035 lb) +186; If load is 925 to 930 kg (2035 to 2046 lb) +187; If load is 930 to 935 kg (2046 to 2057 lb) +188; If load is 935 to 940 kg (2057 to 2068 lb) +189; If load is 940 to 945 kg (2068 to 2079 lb) +190; If load is 945 to 950 kg (2079 to 2090 lb) +191; If load is 950 to 955 kg (2090 to 2101 lb) +192; If load is 955 to 960 kg (2101 to 2112 lb) +193; If load is 960 to 965 kg (2112 to 2123 lb) +194; If load is 965 to 970 kg (2123 to 2134 lb) +195; If load is 970 to 975 kg (2134 to 2145 lb) +196; If load is 975 to 980 kg (2145 to 2156 lb) +197; If load is 980 to 985 kg (2156 to 2167 lb) +198; If load is 985 to 990 kg (2167 to 2178 lb) +199; If load is 990 to 995 kg (2178 to 2189 lb) +200; If load is 995 to 1000 kg (2189 to 2200 lb) +201; If load is 1000 to 1005 kg (2200 to 2211 lb) +202; If load is 1005 to 1010 kg (2211 to 2222 lb) +203; If load is 1010 to 1015 kg (2222 to 2233 lb) +204; If load is 1015 to 1020 kg (2233 to 2244 lb) +205; If load is 1020 to 1025 kg (2244 to 2255 lb) +206; If load is 1025 to 1030 kg (2255 to 2266 lb) +207; If load is 1030 to 1035 kg (2266 to 2277 lb) +208; If load is 1035 to 1040 kg (2277 to 2288 lb) +209; If load is 1040 to 1045 kg (2288 to 2299 lb) +210; If load is 1045 to 1050 kg (2299 to 2310 lb) +211; If load is 1050 to 1055 kg (2310 to 2321 lb) +212; If load is 1055 to 1060 kg (2321 to 2332 lb) +213; If load is 1060 to 1065 kg (2332 to 2343 lb) +214; If load is 1065 to 1070 kg (2343 to 2354 lb) +215; If load is 1070 to 1075 kg (2354 to 2365 lb) +216; If load is 1075 to 1080 kg (2365 to 2376 lb) +217; If load is 1080 to 1085 kg (2376 to 2387 lb) +218; If load is 1085 to 1090 kg (2387 to 2398 lb) +219; If load is 1090 to 1095 kg (2398 to 2409 lb) +220; If load is 1095 to 1100 kg (2409 to 2420 lb) +221; If load is 1100 to 1105 kg (2420 to 2431 lb) +222; If load is 1105 to 1110 kg (2431 to 2442 lb) +223; If load is 1110 to 1115 kg (2442 to 2453 lb) +224; If load is 1115 to 1120 kg (2453 to 2464 lb) +225; If load is 1120 to 1125 kg (2464 to 2475 lb) +226; If load is 1125 to 1130 kg (2475 to 2486 lb) +227; If load is 1130 to 1135 kg (2486 to 2497 lb) +228; If load is 1135 to 1140 kg (2497 to 2508 lb) +229; If load is 1140 to 1145 kg (2508 to 2519 lb) +230; If load is 1145 to 1150 kg (2519 to 2530 lb) +231; If load is 1150 to 1155 kg (2530 to 2541 lb) +232; If load is 1155 to 1160 kg (2541 to 2552 lb) +233; If load is 1160 to 1165 kg (2552 to 2563 lb) +234; If load is 1165 to 1170 kg (2563 to 2574 lb) +235; If load is 1170 to 1175 kg (2574 to 2585 lb) +236; If load is 1175 to 1180 kg (2585 to 2596 lb) +237; If load is 1180 to 1185 kg (2596 to 2607 lb) +238; If load is 1185 to 1190 kg (2607 to 2618 lb) +239; If load is 1190 to 1195 kg (2618 to 2629 lb) +240; If load is 1195 to 1200 kg (2629 to 2640 lb) +241; If load is 1200 to 1205 kg (2640 to 2651 lb) +242; If load is 1205 to 1210 kg (2651 to 2662 lb) +243; If load is 1210 to 1215 kg (2662 to 2673 lb) +244; If load is 1215 to 1220 kg (2673 to 2684 lb) +245; If load is 1220 to 1225 kg (2684 to 2695 lb) +246; If load is 1225 to 1230 kg (2695 to 2706 lb) +247; If load is 1230 to 1235 kg (2706 to 2717 lb) +248; If load is 1235 to 1240 kg (2717 to 2728 lb) +249; If load is 1240 to 1245 kg (2728 to 2739 lb) +250; If load is 1245 to 1250 kg (2739 to 2750 lb) +251; If load is 1250 to 1255 kg (2750 to 2761 lb) +252; If load is 1255 to 1260 kg (2761 to 2772 lb) +253; If load is 1260 to 1265 kg (2772 to 2783 lb) +254; If load is 1265 to 1270 kg (2783 to 2794 lb) +255; If load is 1270 to 1275 kg (2794 to 2805 lb) +256; If load is 1275 to 1280 kg (2805 to 2816 lb) +257; If load is 1280 to 1285 kg (2816 to 2827 lb) +258; If load is 1285 to 1290 kg (2827 to 2838 lb) +259; If load is 1290 to 1295 kg (2838 to 2849 lb) +260; If load is 1295 to 1300 kg (2849 to 2860 lb) +261; If load is 1300 to 1305 kg (2860 to 2871 lb) +262; If load is 1305 to 1310 kg (2871 to 2882 lb) +263; If load is 1310 to 1315 kg (2882 to 2893 lb) +264; If load is 1315 to 1320 kg (2893 to 2904 lb) +265; If load is 1320 to 1325 kg (2904 to 2915 lb) +266; If load is 1325 to 1330 kg (2915 to 2926 lb) +267; If load is 1330 to 1335 kg (2926 to 2937 lb) +268; If load is 1335 to 1340 kg (2937 to 2948 lb) +269; If load is 1340 to 1345 kg (2948 to 2959 lb) +270; If load is 1345 to 1350 kg (2959 to 2970 lb) +271; If load is 1350 to 1355 kg (2970 to 2981 lb) +272; If load is 1355 to 1360 kg (2981 to 2992 lb) +273; If load is 1360 to 1365 kg (2992 to 3003 lb) +274; If load is 1365 to 1370 kg (3003 to 3014 lb) +275; If load is 1370 to 1375 kg (3014 to 3025 lb) +276; If load is 1375 to 1380 kg (3025 to 3036 lb) +277; If load is 1380 to 1385 kg (3036 to 3047 lb) +278; If load is 1385 to 1390 kg (3047 to 3058 lb) +279; If load is 1390 to 1395 kg (3058 to 3069 lb) +280; If load is 1395 to 1400 kg (3069 to 3080 lb) +281; If load is 1400 to 1405 kg (3080 to 3091 lb) +282; If load is 1405 to 1410 kg (3091 to 3102 lb) +283; If load is 1410 to 1415 kg (3102 to 3113 lb) +284; If load is 1415 to 1420 kg (3113 to 3124 lb) +285; If load is 1420 to 1425 kg (3124 to 3135 lb) +286; If load is 1425 to 1430 kg (3135 to 3146 lb) +287; If load is 1430 to 1435 kg (3146 to 3157 lb) +288; If load is 1435 to 1440 kg (3157 to 3168 lb) +289; If load is 1440 to 1445 kg (3168 to 3179 lb) +290; If load is 1445 to 1450 kg (3179 to 3190 lb) +291; If load is 1450 to 1455 kg (3190 to 3201 lb) +292; If load is 1455 to 1460 kg (3201 to 3212 lb) +293; If load is 1460 to 1465 kg (3212 to 3223 lb) +294; If load is 1465 to 1470 kg (3223 to 3234 lb) +295; If load is 1470 to 1475 kg (3234 to 3245 lb) +296; If load is 1475 to 1480 kg (3245 to 3256 lb) +297; If load is 1480 to 1485 kg (3256 to 3267 lb) +298; If load is 1485 to 1490 kg (3267 to 3278 lb) +299; If load is 1490 to 1495 kg (3278 to 3289 lb) +300; If load is 1495 to 1500 kg (3289 to 3300 lb) +301; If load is 1500 to 1505 kg (3300 to 3311 lb) +302; If load is 1505 to 1510 kg (3311 to 3322 lb) +303; If load is 1510 to 1515 kg (3322 to 3333 lb) +304; If load is 1515 to 1520 kg (3333 to 3344 lb) +305; If load is 1520 to 1525 kg (3344 to 3355 lb) +306; If load is 1525 to 1530 kg (3355 to 3366 lb) +307; If load is 1530 to 1535 kg (3366 to 3377 lb) +308; If load is 1535 to 1540 kg (3377 to 3388 lb) +309; If load is 1540 to 1545 kg (3388 to 3399 lb) +310; If load is 1545 to 1550 kg (3399 to 3410 lb) +311; If load is 1550 to 1555 kg (3410 to 3421 lb) +312; If load is 1555 to 1560 kg (3421 to 3432 lb) +313; If load is 1560 to 1565 kg (3432 to 3443 lb) +314; If load is 1565 to 1570 kg (3443 to 3454 lb) +315; If load is 1570 to 1575 kg (3454 to 3465 lb) +316; If load is 1575 to 1580 kg (3465 to 3476 lb) +317; If load is 1580 to 1585 kg (3476 to 3487 lb) +318; If load is 1585 to 1590 kg (3487 to 3498 lb) +319; If load is 1590 to 1595 kg (3498 to 3509 lb) +320; If load is 1595 to 1600 kg (3509 to 3520 lb) +321; If load is 1600 to 1605 kg (3520 to 3531 lb) +322; If load is 1605 to 1610 kg (3531 to 3542 lb) +323; If load is 1610 to 1615 kg (3542 to 3553 lb) +324; If load is 1615 to 1620 kg (3553 to 3564 lb) +325; If load is 1620 to 1625 kg (3564 to 3575 lb) +326; If load is 1625 to 1630 kg (3575 to 3586 lb) +327; If load is 1630 to 1635 kg (3586 to 3597 lb) +328; If load is 1635 to 1640 kg (3597 to 3608 lb) +329; If load is 1640 to 1645 kg (3608 to 3619 lb) +330; If load is 1645 to 1650 kg (3619 to 3630 lb) +331; If load is 1650 to 1655 kg (3630 to 3641 lb) +332; If load is 1655 to 1660 kg (3641 to 3652 lb) +333; If load is 1660 to 1665 kg (3652 to 3663 lb) +334; If load is 1665 to 1670 kg (3663 to 3674 lb) +335; If load is 1670 to 1675 kg (3674 to 3685 lb) +336; If load is 1675 to 1680 kg (3685 to 3696 lb) +337; If load is 1680 to 1685 kg (3696 to 3707 lb) +338; If load is 1685 to 1690 kg (3707 to 3718 lb) +339; If load is 1690 to 1695 kg (3718 to 3729 lb) +340; If load is 1695 to 1700 kg (3729 to 3740 lb) +341; If load is 1700 to 1705 kg (3740 to 3751 lb) +342; If load is 1705 to 1710 kg (3751 to 3762 lb) +343; If load is 1710 to 1715 kg (3762 to 3773 lb) +344; If load is 1715 to 1720 kg (3773 to 3784 lb) +345; If load is 1720 to 1725 kg (3784 to 3795 lb) +346; If load is 1725 to 1730 kg (3795 to 3806 lb) +347; If load is 1730 to 1735 kg (3806 to 3817 lb) +348; If load is 1735 to 1740 kg (3817 to 3828 lb) +349; If load is 1740 to 1745 kg (3828 to 3839 lb) +350; If load is 1745 to 1750 kg (3839 to 3850 lb) +351; If load is 1750 to 1755 kg (3850 to 3861 lb) +352; If load is 1755 to 1760 kg (3861 to 3872 lb) +353; If load is 1760 to 1765 kg (3872 to 3883 lb) +354; If load is 1765 to 1770 kg (3883 to 3894 lb) +355; If load is 1770 to 1775 kg (3894 to 3905 lb) +356; If load is 1775 to 1780 kg (3905 to 3916 lb) +357; If load is 1780 to 1785 kg (3916 to 3927 lb) +358; If load is 1785 to 1790 kg (3927 to 3938 lb) +359; If load is 1790 to 1795 kg (3938 to 3949 lb) +360; If load is 1795 to 1800 kg (3949 to 3960 lb) +361; If load is 1800 to 1805 kg (3960 to 3971 lb) +362; If load is 1805 to 1810 kg (3971 to 3982 lb) +363; If load is 1810 to 1815 kg (3982 to 3993 lb) +364; If load is 1815 to 1820 kg (3993 to 4004 lb) +365; If load is 1820 to 1825 kg (4004 to 4015 lb) +366; If load is 1825 to 1830 kg (4015 to 4026 lb) +367; If load is 1830 to 1835 kg (4026 to 4037 lb) +368; If load is 1835 to 1840 kg (4037 to 4048 lb) +369; If load is 1840 to 1845 kg (4048 to 4059 lb) +370; If load is 1845 to 1850 kg (4059 to 4070 lb) +371; If load is 1850 to 1855 kg (4070 to 4081 lb) +372; If load is 1855 to 1860 kg (4081 to 4092 lb) +373; If load is 1860 to 1865 kg (4092 to 4103 lb) +374; If load is 1865 to 1870 kg (4103 to 4114 lb) +375; If load is 1870 to 1875 kg (4114 to 4125 lb) +376; If load is 1875 to 1880 kg (4125 to 4136 lb) +377; If load is 1880 to 1885 kg (4136 to 4147 lb) +378; If load is 1885 to 1890 kg (4147 to 4158 lb) +379; If load is 1890 to 1895 kg (4158 to 4169 lb) +380; If load is 1895 to 1900 kg (4169 to 4180 lb) +381; If load is 1900 to 1905 kg (4180 to 4191 lb) +3

RULA Employee Assessment Worksheet

Complete this worksheet following the step-by-step procedure below. Keep a copy in the employee's personnel folder for future reference.

A. Arm & Wrist Analysis

Step 1: Locate Upper Arm Position



Final Upper Arm Score = 3/3

Step 2: Locate Lower Arm Position



Final Lower Arm Score = 3/3

Step 3: Locate Wrist Position



Final Wrist Score = 2/2

Step 4: Wrist Twist



Final Wrist Twist Score = 2/2

Step 5: Look-up Posture Score in Table A

Upper Arm	Lower Arm	Wrist	Wrist Twist	Score
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5

Final Score A = 4/4

Step 6: Add Muscle Use Score

Muscle Use	Score
1	1
2	2
3	3
4	4
5	5

Final Muscle Use Score = 1/1

Step 7: Add Force/Load Score

Force/Load	Score
1	1
2	2
3	3
4	4
5	5

Final Force/Load Score = 1/1

Step 8: Find Row in Table C

Final Score A	Final Muscle Use Score	Final Force/Load Score	Final Row
4/4	1/1	1/1	4
3/3	1/1	1/1	3
2/2	1/1	1/1	2
1/1	1/1	1/1	1

Final Score = 6/6

SCORES

Table A

Upper Arm	Lower Arm	Wrist	Wrist Twist	Score
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5

Table B

Neck	Legs	Legs	Legs	Score
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5

Table C

Final Score A	Final Muscle Use Score	Final Force/Load Score	Final Row
4/4	1/1	1/1	4
3/3	1/1	1/1	3
2/2	1/1	1/1	2
1/1	1/1	1/1	1

Final Score = 6/6

B. Neck, Trunk & Leg Analysis

Step 9: Locate Neck Position



Final Neck Score = 3/3

Step 10: Locate Trunk Position



Final Trunk Score = 4/4

Step 11: Legs



Final Legs Score = 1/1

Step 12: Look-up Posture Score in Table B

Neck	Legs	Legs	Legs	Score
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5

Final Score B = 5/5

Step 13: Add Muscle Use Score

Muscle Use	Score
1	1
2	2
3	3
4	4
5	5

Final Muscle Use Score = 0/0

Step 14: Add Force/Load Score

Force/Load	Score
1	1
2	2
3	3
4	4
5	5

Final Force/Load Score = 0/0

Step 15: Find Column in Table C

Final Score B	Final Muscle Use Score	Final Force/Load Score	Final Column
5/5	0/0	0/0	5
4/4	0/0	0/0	4
3/3	0/0	0/0	3
2/2	0/0	0/0	2
1/1	0/0	0/0	1

Final Score = 6/6

Subject: XXXXXXXXXX Department: XXXXXXXXXX Date: 1/1 Score: 6/6

FINAL SCORE: 1 or 2 = Acceptable; 3 or 4 investigate further; 5 or 6 investigate further and change soon; 7 investigate and change immediately

Source: McAtamney, L. & Corlett, E.N. (1993) RULA: a survey method for the investigation of work-related upper limb disorders. *Applied Ergonomics*, 24(2) 91-99.

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ภาพที่ ค-3

ค่าคะแนนท่าทางการทำงาน (RULA) ของผู้ถูกทดลองคนที่ 3 ก่อนการปรับปรุงสถานีงาน

RULA Employee Assessment Worksheet

Complete this worksheet following the step-by-step procedure below. Keep a copy in the employee's personnel folder for future reference.

A. Arm & Wrist Analysis

Step 1: Locate Upper Arm Position

 Final Upper Arm Score = 3/3

Step 2: Locate Lower Arm Position

 Final Lower Arm Score = 3/3

Step 3: Locate Wrist Position

 Final Wrist Score = 3/2

Step 4: Wrist Twist

 Final Twist Score = 2/2

Step 5: Look-up Posture Score in Table A
 Use values from steps 1, 2, & 3 to locate Posture Score in Table A.

Step 6: Add Muscle Use Score
 If posture is static (no force, no repetition, no awkward posture) = 0
 If posture is dynamic (force, repetition, or awkward posture) = 1

Step 7: Add Force/Load Score
 If load is less than 2 kg (4.4 lbs) = 0
 If load is 2 to 5 kg (4.4 to 11 lbs) = 1
 If load is 5 to 10 kg (11 to 22 lbs) = 2
 If load is 10 to 15 kg (22 to 33 lbs) = 3
 If load is 15 to 20 kg (33 to 44 lbs) = 4
 If load is 20 to 25 kg (44 to 55 lbs) = 5

Step 8: Find Row in Table C
 The complete RULA score is found by adding the scores from the final scores in Table A, Table B, and Table C.

Table A

Upper Arm	Lower Arm	Wrist	Twist	Score
1	1	1	1	1
1	1	2	1	2
1	1	3	1	3
1	1	4	1	4
1	1	5	1	5
1	2	1	1	2
1	2	2	1	3
1	2	3	1	4
1	2	4	1	5
1	2	5	1	6
1	3	1	1	3
1	3	2	1	4
1	3	3	1	5
1	3	4	1	6
1	3	5	1	7
1	4	1	1	4
1	4	2	1	5
1	4	3	1	6
1	4	4	1	7
1	4	5	1	8
1	5	1	1	5
1	5	2	1	6
1	5	3	1	7
1	5	4	1	8
1	5	5	1	9
2	1	1	1	2
2	1	2	1	3
2	1	3	1	4
2	1	4	1	5
2	1	5	1	6
2	2	1	1	3
2	2	2	1	4
2	2	3	1	5
2	2	4	1	6
2	2	5	1	7
2	3	1	1	4
2	3	2	1	5
2	3	3	1	6
2	3	4	1	7
2	3	5	1	8
2	4	1	1	5
2	4	2	1	6
2	4	3	1	7
2	4	4	1	8
2	4	5	1	9
2	5	1	1	6
2	5	2	1	7
2	5	3	1	8
2	5	4	1	9
2	5	5	1	10
3	1	1	1	3
3	1	2	1	4
3	1	3	1	5
3	1	4	1	6
3	1	5	1	7
3	2	1	1	4
3	2	2	1	5
3	2	3	1	6
3	2	4	1	7
3	2	5	1	8
3	3	1	1	5
3	3	2	1	6
3	3	3	1	7
3	3	4	1	8
3	3	5	1	9
3	4	1	1	6
3	4	2	1	7
3	4	3	1	8
3	4	4	1	9
3	4	5	1	10
3	5	1	1	7
3	5	2	1	8
3	5	3	1	9
3	5	4	1	10
3	5	5	1	11

Table C

Posture Score	Muscle Use Score	Force/Load Score	Final Score
1	0	0	1
1	1	0	2
1	2	0	3
1	3	0	4
1	4	0	5
1	5	0	6
2	0	0	2
2	1	0	3
2	2	0	4
2	3	0	5
2	4	0	6
2	5	0	7
3	0	0	3
3	1	0	4
3	2	0	5
3	3	0	6
3	4	0	7
3	5	0	8
4	0	0	4
4	1	0	5
4	2	0	6
4	3	0	7
4	4	0	8
4	5	0	9
5	0	0	5
5	1	0	6
5	2	0	7
5	3	0	8
5	4	0	9
5	5	0	10

Final Score = 6/6

Subject: WILSON
 Company: _____

Department: _____

Date: 1/1
 Score: _____

FINAL SCORE: 1 or 2 = Acceptable; 3 or 4 Investigate further; 5 or 6 Investigate further and change soon; 7 Investigate and change immediately

Source: McAtamney, L. & Corlett, E.N. (1993) RULA: a simple method for the investigation of work-related upper limb disorders. *Applied Ergonomics*, 24(2) 91-99.

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ภาพที่ ค-4

ค่าคะแนนท่าทางการทำงาน(RULA)ของผู้ถูกทดลองคนที่ 4 ก่อนการปรับปรุงสถานงาน

